C O M B I T H E R M®

ecosmart™

STEP BY STEP OPERATION MANUAL

smart clean™

ALTO SHAAM®

ALTO SHAAM COMBITHERM

COMBINATION OVEN/STEAMER

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ALTO SHAAM COMBITHERM®

COMBINATION OVEN/STEAMER

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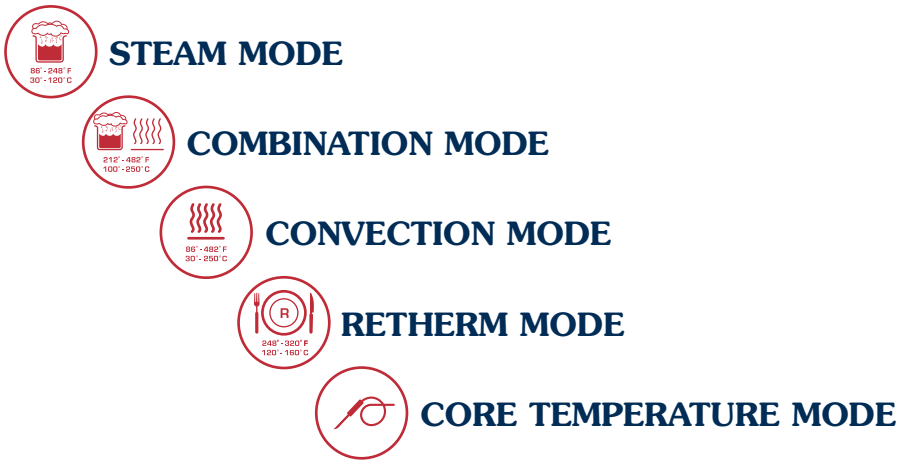
ALTO SHAAM COMBITHERM® COMBINATION OVEN/STEAMER

INTRODUCTION

The Combitherm combination oven/steamer is a multipurpose oven used for steaming, baking, roasting, thawing, reheating, and various other cooking functions. In the past, a variety of cooking processes required multiple pieces of equipment. Considering space limitations and rising personnel costs, the Combitherm combination oven/steamer offers multiple cooking functions with one piece of equipment, saving both space and labor cost. The Combitherm combination oven/steamer is both a supplement and a replacement for some of the traditional cooking units found in most commercial kitchens. It enables the operator to produce high quality meals efficiently. The ability to use one combination oven for various cooking methods represents only one of the many economical and versatile capabilities of the Combitherm.

COMBITHERM COMBINATION OVEN/STEAMER ADVANTAGES

- Easy operation.
- Large quantity production in the smallest possible space.
- Quality production with high levels of nutrition, color, taste, and texture, with no transfer of flavors.
- Lower energy cost and less water usage due to the unique EcoSmart system of operation.
- Shorter cooking times with the use of both the steam mode and combination mode.

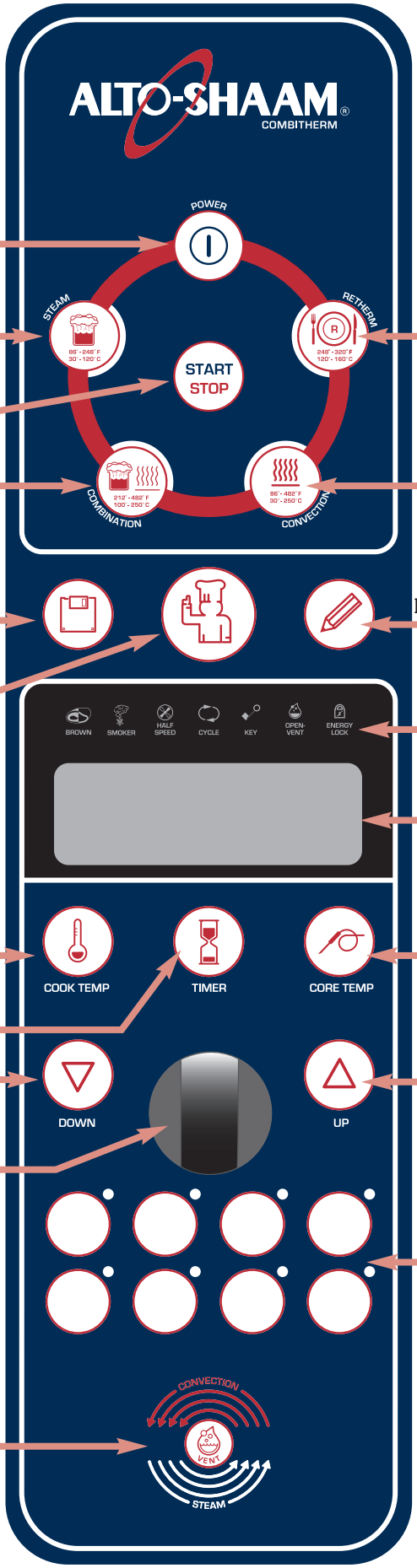


The Alto-Shaam Combitherm combination oven/steamer employs EcoSmart operating efficiencies in the design and application of all operating and programming functions. EcoSmart operational characteristics include the use of a water barrier to close the oven compartment to the outside air. While maintaining a non-pressurized atmosphere, the primary purpose of the EcoSmart system prevents the steam and heat generated within the oven compartment from freely escaping to the outside.

The EcoSmart design displaces the air within the cooking compartment and achieves a higher level of steam saturation that offers quick-steaming at temperatures above 212°F (100°C). The electronic computer control in the Combitherm combination oven/steamer is fully automatic in the EcoSmart system of operation.

This guide is provided as an operational aid with step-by-step instructions of the basic functions of the Combitherm oven, along with the many other additional features of the control.

CONTROL PANEL IDENTIFICATION
STANDARD AND PROGRAMMABLE DELUXE MODELS



1. POWER ON/OFF KEY
2. STEAM MODE KEY
3. START/STOP KEY
4. COMBINATION MODE KEY
5. PROGRAMMED MENU KEY
   DELUXE MODELS ONLY
6. CHEF FUNCTION KEY
7. COOKING TEMPERATURE KEY
8. TIME KEY
9. DOWN ARROW KEY
10. ADJUSTMENT KNOB
11. MOISTURE VENT KEY
    ELECTRIC MODELS ONLY
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    DELUXE MODELS ONLY
15. FUNCTION & OPERATING INDICATORS
16. CONTROL PANEL DISPLAY
17. CORE TEMPERATURE KEY
18. UP ARROW KEY
19. RAPID-TOUCH KEYS
    DELUXE MODELS ONLY

STANDARD & DELUXE CONTROL PANEL BASIC FUNCTION

① POWER ON/OFF KEY

Activates power to the oven and automatically fills the steam generator equipped models with water that will heat to a stand-by mode temperature of 188°F (77°C). The steam generator flush is also activated by pressing this key.

② STEAM MODE KEY

The oven will operate in the steam mode at a temperature range of 86°F to 248°F (30°C to 120°C).

- Automatic steaming at 212°F (100°C) ***FACTORY-SET DEFAULT***.
- Quick steaming between 213°F and 248°F (101°C and 120°C).
- Low Temperature Steaming between 86°F and 211°F (30°C and 99°C).

③ START/STOP KEY

Initiates all cooking mode functions and programmed procedures stored in memory. Stops an activated cooking mode or programmed procedure currently in progress, and exits the Chef function key ⑥.

④ COMBINATION MODE KEY

Selection key for cooking with a combination of steam and convection heat that can be set within a temperature range of 212°F to 482°F (100°C and 250°C).

⑤ PROGRAMMED MENU KEY

Used to access and exit a menu list of all stored cooking programs that can be reviewed in display ⑯. ***DELUXE MODELS ONLY***

⑥ CHEF FUNCTION KEY

Used to select programmed menu functions, various auxiliary functions, and several chef help instructions.

⑦ COOKING TEMPERATURE KEY

Used to set the required cooking temperature, to recall the set cooking temperature, or to check the actual oven temperature in conjunction with the down arrow key ⑨, the up arrow key ⑱ or the adjustment knob ⑩.

⑧ TIME KEY

Used to set the required cooking time or recall the set cooking time in conjunction with the down arrow key ⑨, the up arrow key ⑱, or the adjustment knob ⑩.

⑨ DOWN ARROW KEY

Used to decrease displayed cook temperature ⑦, time ⑧, or core temperature ⑰ and as a scrolling key for programming functions.

⑩ ADJUSTMENT KNOB

Displays oven functions. Serves the same function as the up and down arrow keys to increase or decrease the displayed cook temperature ⑦, time ⑧, or core temperature ⑰.

⑪ MOISTURE VENT KEY *ELECTRIC MODELS ONLY*

Immediately vents steam and condensate from the oven compartment while cooking in the Convection mode ⑬ or in the Combination mode ④.

⑫ RETHERM MODE KEY

Food rethermalization or reheating mode will operate with automatic steam injection at a temperature range of 248°F to 320°F (120°C to 160°C).

⑬ CONVECTION MODE KEY

Selection key for convection cooking without steam at a temperature range of 86°F to 482°F (30°C to 250°C).

⑭ PROGRAM INSTALL AND EDIT KEY

Used to create, change, duplicate, and delete programmed menus. ***DELUXE MODELS ONLY***.

⑯ CONTROL PANEL DISPLAY

⑰ CORE TEMPERATURE KEY

Used to set the required internal product temperature, to recall the internal product temperature set by the operator, or to display the current internal temperature of the product in conjunction with the down arrow key ⑨, the up arrow key ⑱, or the adjustment knob ⑩.

⑱ UP ARROW KEY

Used to increase displayed cook temperature ⑦, time ⑧, or core temperature ⑰ and as a scrolling key for programming functions.

⑲ RAPID-TOUCH KEYS *DELUXE MODELS ONLY*.

One-touch cooking for immediate access to frequently used operator set programs including cooking modes, cleaning, and other oven functions.

CONTINUED

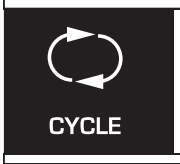
STANDARD & DELUXE CONTROL PANEL BASIC FUNCTIONS

⑮ FUNCTION & OPERATING INDICATORS

A. GOLD-N-BROWN FEATURE
This indicator will illuminate when the browning function is set by the operator in a timed or programmed cooking cycle in either convection mode or combination mode.

B. COMBI SMOKER (ON EQUIPPED MODELS)
This indicator will illuminate when the smoking function is set by the operator in a timer, probe or programmed cooking cycle in either convection mode or combination mode.

C. REDUCED FAN SPEED
This indicator will illuminate whenever the operator sets a reduced fan speed to protect products affected by high-velocity air movement.



D. CONFIRMATION OF OVEN OPERATION
This indicator illuminates whenever the oven is operating in any mode.

E. KEY LOCK
This indicator will illuminate when operator has locked any mode key or function to prevent unauthorized or accidental changes.

F. MOISTURE VENT
This indicator will illuminate whenever the Moisture Vent Key ⑪ is pressed by the operator to eliminate excessive moisture.

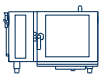
G. ENERGY LOCK
FOR USE WITH OVENS INSTALLED UNDER AN ALTO-SHAAM VENTLESS HOOD.
This indicator is a safety feature that will illuminate and prevent the oven from being operated unless the ventless oven hood is operating.

SET UP MENU

Following installation, the control should be set with the date and time. In addition to the date and time, the set-up function provides the operator with the ability to adjust a number of other Combitherm operating conditions to conform with the needs of the individual installation.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.

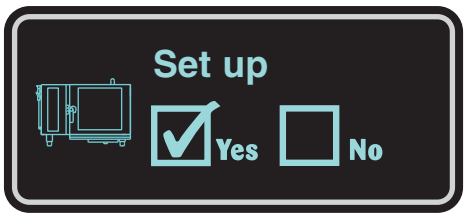
PRESS THE CHEF FUNCTION KEY.



Rotate the adjustment knob until the set up symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the set up function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SET UP FUNCTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to highlight one of the following adjustment functions:

SET UP ADJUSTMENT CHOICES

- SIGNAL TONE
- VOLUME
- TIME
- DATE
- PROGRAM INDEX
- DEFAULT/MEMO SETTINGS
- TEMPERATURE DISPLAY
- NETWORK ADDRESS
- LANGUAGE

SIGNAL TONE

Rotate the adjustment knob until the signal tone symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SIGNAL TONE SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select each tone offered. Stop rotation at each individual setting to hear an audio playback. Select the tone desired.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTED SIGNAL TONE SETTING.

SET-UP PROCEDURES

ALWAYS BEGIN SET UP ADJUSTMENTS FROM THE SET UP MENU .

VOLUME

Rotate the adjustment knob until the volume symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE VOLUME SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select each volume level offered. Stop rotation at each individual setting to hear an audio playback. Select the volume desired with consideration of the noise level within the kitchen during peak production periods.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE VOLUME SETTING.

TIME

Rotate the adjustment knob until the time symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE TIME SELECTION.

Press the up △ and down ▽ arrow keys to alternate between hours and minutes and rotate the adjustment knob in each to adjust the numbers to the correct time.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SET TIME.

DATE

Rotate the adjustment knob until the date symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE DATE SELECTION.

Rotate the adjustment knob to select the preferred date format.

Press the up △ and down ▽ arrow keys to alternate between day, month and year, and rotate the adjustment knob in each to adjust the numbers to the correct settings.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SET DATE.

PROGRAM INDEX

Rotate the adjustment knob until the program index symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE PROGRAM INDEX SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the preferred index format:
"YES" for a listing of programs entered alphabetically with the program install/edit key.
"NO" for a listing of programs entered numerically with the program install/edit key.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE PROGRAM INDEX SETTING.

SET-UP PROCEDURES

ALWAYS BEGIN SET UP ADJUSTMENTS FROM THE SET UP MENU .

DEFAULT/MEMO SETTING

The default/memo setting allows the operator to choose between a display showing the factory set defaults for time and temperature or the last operator set values for time and temperature in each cooking mode. This adjustment function also allows the operator to change the defaults from those set at the factory to settings that better meet the needs of the individual operation.

Cooking product with operator set defaults for time and temperature can help reduce operator error. Cooking with the oven in the memo setting is particularly useful when several batches are cooked in succession. The memo setting eliminates the necessity to set time and temperature for each batch.

Rotate the adjustment knob until the default/memo symbol (Auto Memo) is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE DEFAULT/MEMO SELECTION.

Rotate the adjustment knob to ***"NO"*** for memo. This setting will display the last operator set values for time and temperature in each cooking mode.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE MEMO SETTING.

TO CHANGE THE DEFAULT SETTINGS

Rotate the adjustment knob to select ***"YES"***.

A numbered list of default descriptions will appear in the display. Rotate the adjustment knob until the setting to be changed is highlighted. Press the up △ arrow key to highlight the time or temperature to be changed. Rotate the adjustment knob to change the default to the setting desired. Press the down ▽ arrow key to save the new default setting.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE NEW DEFAULT SETTINGS.

COMBITHERM FACTORY SET DEFAULT SETTINGS

COOKING MODE	OVEN TEMPERATURE	CORE TEMPERATURE	COOKING TIME
STEAM MODE	212°F (100°C)	158°F (70°C)	25 MINUTES
COMBINATION STEAM MODE	302°F (150°C)	158°F (70°C)	70 MINUTES
CONVECTION MODE	338°F (170°C)	158°F (70°C)	30 MINUTES
RETHERM MODE	275°F (135°C)	158°F (70°C)	5 MINUTES
DELTA-T MODE	122°F (50°C)	172°F (77°C)	FREE
PREHEAT MODE	374°F (140°C)	FREE	—

SET-UP PROCEDURES

ALWAYS BEGIN SET UP ADJUSTMENTS FROM THE SET UP MENU .

TEMPERATURE DISPLAY

Rotate the adjustment knob until the temperature display symbol °C/F is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE TEMPERATURE DISPLAY SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select either Fahrenheit or Celsius.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE TEMPERATURE DISPLAY SETTING.

NETWORK ADDRESS

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the network address symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE NETWORK ADDRESS SELECTION.

The current network address will appear in the display.

Rotate the adjustment knob to select 1 through 99 and assign a different network number for each PC to be connected.

PRESS THE CHEF FUNCTION KEY TO CONFIRM EACH NETWORK ADDRESS.

LANGUAGE

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the language symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE LANGUAGE PROGRAM SELECTION.

Rotate the adjustment knob to select the required language.

CHINESE	***ITALIAN***	***RUSSIAN***
DUTCH	***JAPANESE***	***SPANISH***
ENGLISH*	***KOREAN***	***SWEDISH***
FRENCH	***POLISH***	
GERMAN	***PORTUGUESE***	

*U.S. FACTORY SETTING

NOTE: SOME OF THE LANGUAGE SELECTIONS SHOWN ABOVE MAY NOT BE AVAILABLE ON ALL MODELS.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE LANGUAGE SETTING.

IMPORTANT SAFETY PRECAUTIONS

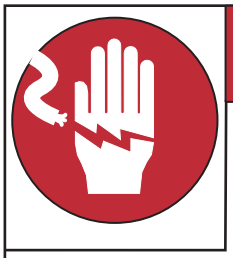
NOTE: Automatic steam venting is a standard safety feature built into all Combitherm oven models. This feature vents all steam from the oven compartment IMMEDIATELY BEFORE COOKING TIME EXPIRES.

This function is provided in all programmed and timed production when operating in any Steam, Combination, Convection, and Retherm cooking mode. Automatic steam venting does not function if the oven door is opened before time expires or when the oven has been set to continuous operation.

WARNING

HOT STEAM CAUSES BURNS

ROTATE THE DOOR HANDLE TO THE FIRST OPEN ROTATION POSITION ONLY. WAIT UNTIL THE STEAM IS VENTED BEFORE FULLY OPENING THE DOOR.



DANGER

AT NO TIME SHOULD THE INTERIOR OR EXTERIOR BE STEAM CLEANED, HOSED DOWN, OR FLOODED WITH WATER OR LIQUID SOLUTION OF ANY KIND. DO NOT USE WATER JET TO CLEAN.

SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT.

WARRANTY BECOMES VOID IF APPLIANCE IS FLOODED.

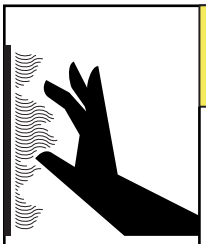
CAUTION

DO NOT USE THE ATTACHED HAND-HELD HOSE TO SPRAY ANYTHING OTHER THAN THE INTERIOR OF THE COMBITHERM OVEN COMPARTMENT.

DO NOT USE THE SPRAY HOSE ON THE SURFACE OF A HOT COOKING COMPARTMENT. ALLOW THE OVEN TO COOL TO A MINIMUM OF 150°F (66°C).

WARNING

DO NOT HANDLE PANS CONTAINING LIQUID OR SEMILIQUID PRODUCTS POSITIONED ABOVE THE EYE LEVEL OF THE OPERATOR. SUCH PRODUCTS CAN SCALD AND CAUSE SERIOUS INJURY.



CAUTION

METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

NOTE: USE AUTHORIZED COMBITHERM OVEN CLEANER ONLY.

UNAUTHORIZED CLEANING AGENTS MAY DISCOLOR OR HARM INTERIOR SURFACES OF THE OVEN. READ AND UNDERSTAND LABEL AND MATERIAL SAFETY DATA SHEET BEFORE USING THE OVEN CLEANER.

FOR OPERATOR SAFETY

NOTE AND OBSERVE ALL SAFETY PRECAUTIONS LOCATED THROUGHOUT THIS GUIDE.

STEAM MODE

STEAM ● LOW TEMPERATURE STEAM ● QUICK STEAM

The Steam mode provides the operator with the ability to steam, poach, or blanch. This mode will automatically steam at the boiling point of water; quick-steam above the boiling point for faster cooking results; or low temperature steam, below the boiling point, for more delicate products such as pâté, mousse, seafood, or custard.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.

PRESS THE STEAM MODE KEY.

Automatic Steam temperature of 212°F (100°C) will appear in the display.
The last set time or oven control default setting for time will appear in the display.

START STOP **PRESS THE START KEY TO STEAM AT THE SETTINGS SHOWN.**

TO CHANGE THE SETTINGS SHOWN:

PRESS THE TEMPERATURE KEY.

The cooking temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired cooking temperature.

- Automatic Steaming 212°F (100°C)
- Quick-steaming 213°F to 248°F (101°C to 120°C)
- Low Temperature Steaming 86°F to 211°F (30°C to 99°C)

TO COOK BY TIME:

PRESS THE TIME KEY.

The cooking time will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the time desired...

or

Set control for continuous operation by rotating the adjustment knob to the right until ∞ appears in the display.

TO COOK BY INTERNAL PRODUCT TEMPERATURE:

PRESS THE CORE TEMP KEY.

The previously set core temperature or oven control default setting will appear highlighted within the oven display.

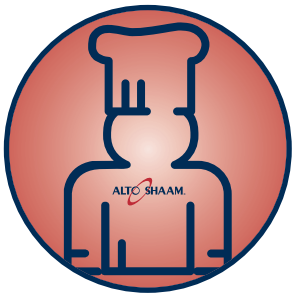
Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the internal temperature desired and insert the product probe.

START STOP **PRESS THE START KEY TO BEGIN COOKING IN THE STEAM MODE.**

- The set cooking temperature will appear in the display. To adjust the set temperature, press the key once and make corrections as required. To display the actual oven temperature, press the key twice.
- The remaining cooking time will appear in the display. To display the set time or to change the set values for time during operation, press the time key once and make corrections as required.
- The actual internal product temperature will appear in the display. To display the set internal product temperature or to change the set values for core temperature during operation, press the key once and make corrections as required.

When the cooking time has expired or the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.



STEAM MODE
CHEF OPERATING TIPS

This mode will steam a full or partial load of a single product, or multiple products without transfer of flavors. When steaming multiple products, however, individual product cooking times must be taken into consideration. The non-pressurized atmosphere of the Combitherm also provides the ability to open the door during the steam mode in order to monitor products more closely throughout the steaming process.

STEAM

Perforated, 2-1/2" deep pans (65mm) are particularly suitable for use in this program mode. These pans will provide a shorter cooking time and will prevent product over-cooking at the bottom of the pan.

Separate ice-encased vegetables before steaming to assure more even cooking.

A variety of products can be steamed at the same time but attention must be paid to the different cooking times required for each food product.

Butter and season vegetables after steaming.

Steam long-grain rice using approximately 1-part rice to approximately 1-1/2-parts water or seasoned liquid.

Steam durum wheat noodles in unperforated pans using 1-part noodles to 5-parts cold water.

QUICK STEAMING

Quick steaming is suitable for hearty, root-type vegetables such as potatoes, legumes, and cabbage.

Quick steaming provides a cooking time which is approximately 10-percent shorter than the regular steam mode temperature of 212°F (100°C).

Set the steam cooking temperature between 221°F (105°C) and 230°F (110°C) for small loads and between 230°F (110°C) and 248°F (120°C) for full loads.

LOW TEMP STEAM

The low temperature steam mode will function whenever the oven compartment temperature is below 212°F (100°C).

Proof yeast dough at a temperature setting of 90°F to 110°F (32°C to 43°C).

It will take longer to steam products using the low temperature steam mode.

Steaming sausages in low temperature steam prevents cracked or peeling skins.

Use low temperature steam for delicate foods such as shrimp, fish, seafood, and crème caramel.

For best results, low temperature steam all delicate food items at a temperature of 210°F (99°C) or below.

COMBINATION MODE

The Combination mode will prove to be the most versatile and widely used mode the Combitherm oven has to offer. It will produce the best possible results on the widest variety of products — all within the shortest period of time. The unique control function of this mode enables the operator to roast or bake with a combination of steam and convection heat. In addition to shorter cooking times, this combination of steam and heat offers less product shrinkage and more moisture retention than obtained in a standard convection oven.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.

PRESS THE COMBINATION MODE KEY.

The last set values or oven control default setting for temperature will appear in the display.
The last set time or oven control default setting for time will appear in the display.

START STOP **PRESS THE START KEY TO COOK AT THE SETTINGS SHOWN.**

TO CHANGE THE SETTINGS SHOWN:

PRESS THE TEMPERATURE KEY.

The cooking temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired cooking temperature.
- 212°F to 482°F (100°C to 250°C)

TO COOK BY TIME:

PRESS THE TIME KEY.

The cooking time will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the time desired...

or

Set control for continuous operation by rotating the adjustment knob to the right until ∞ appears in the display.

TO COOK BY INTERNAL PRODUCT TEMPERATURE:

PRESS THE CORE TEMP KEY.

The core temperature will appear highlighted within the oven display.

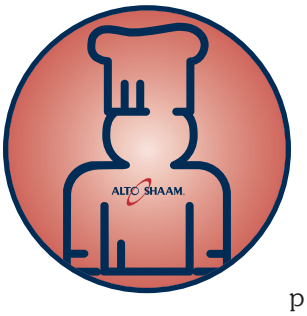
Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the internal temperature desired and insert the product probe.

START STOP **PRESS THE START KEY TO BEGIN COOKING IN THE COMBINATION MODE.**

- The set cooking temperature will appear in the display. To adjust the set temperature, press the key once and make corrections as required. To display the actual oven temperature, press the key twice.
- The remaining cooking time will appear in the display. To display the set time or to change the set values for time during operation, press the time key once and make corrections as required.
- The actual internal product temperature will appear in the display. To display the set internal product temperature or to change the set values for core temperature during operation, press the key once and make corrections as required.

When the cooking time has expired or the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.



COMBINATION MODE CHEF OPERATING TIPS

The Combination mode injects the optimum amount of steam automatically. There is no need to select moisture levels. Foods do not dry out. Flavors are retained with no transfer of flavors when mixing product loads.

Due to the automatic steam adjustment, the door can be opened at any time during a cooking operation. Be certain to observe the safety warning when opening the oven door.

The Combination mode is particularly efficient when used for baking, broiling, grilling, stewing, braising, and roasting.`

When using the Combination mode, cooking temperatures can be reduced 10- to 20-percent below the temperatures used for conventional cooking methods.

Cooking time will be reduced approximately 40-percent when cooking at the same temperature used for convection oven cooking and up to 50- to 60-percent less time when cooking at the same temperature used for a conventional oven.

Food browning in the Combitherm begins at a cooking temperature of approximately 248°F (120°C).

A higher cooking temperature results in heavier browning but also results in greater product weight loss. To achieve additional browning use the Moisture Vent Key or set Gold-n-Brown into the product procedure. Gold-n-Brown is particularly useful for adding color to high moisture products such as chicken and other poultry items or for additional browning of full loads and other moist products.

The Combination mode provides even browning without the necessity to turn the pans.

For more even cooking, do not cook in pans deeper than 4-inches (100mm).

CONVECTION MODE

The Convection mode operates with hot circulated air within a temperature range of 86° to 482°F (30° to 250°C). For many applications, better results may be achieved with the Combination mode; therefore, the operator may want to consider using the Convection mode on a more limited basis.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.

PRESS THE CONVECTION MODE KEY.

The last set values or oven control default setting for temperature will appear in the display.
The last set time or oven control default setting for time will appear in the display.

START STOP **PRESS THE START KEY TO COOK AT THE SETTINGS SHOWN.**

TO CHANGE THE SETTINGS SHOWN:

PRESS THE TEMPERATURE KEY.

The cooking temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired cooking temperature.
- 86° to 482°F (30° to 250°C)

TO COOK BY TIME:

PRESS THE TIME KEY.

The cooking time will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the time desired...

or

Set control for continuous operation by rotating the adjustment knob to the right until ⁘ appears in the display.

TO COOK BY INTERNAL PRODUCT TEMPERATURE:

PRESS THE CORE TEMP KEY.

The core temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the internal temperature desired and insert the product probe.

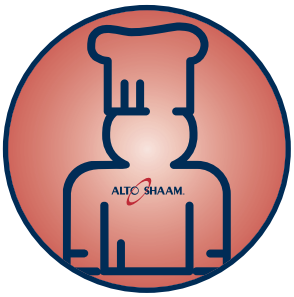
START STOP **PRESS THE START KEY TO BEGIN THE COOKING MODE.**

- The set cooking temperature will appear in the display. To adjust the set temperature, press the key once and make corrections as required. To display the actual oven temperature, press the key twice.
- The remaining cooking time will appear in the display. To display the set time or to change the set values for time during operation, press the time key once and make corrections as required.
- The actual internal product temperature will appear in the display. To display the set internal product temperature or to change the set values for core temperature during operation, press the key once and make corrections as required.

When the cooking time has expired or the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.

To check the length of time the product has been operating in the core temperature mode, press and hold the time key along with the core temperature key. The time period will appear at the top of the display.



CONVECTION MODE CHEF OPERATING TIPS

The Convection Mode can be used to roast or bake products needing very short cooking times or for high moisture products such as muffins, cakes, and cookies, or for browning the surface of the product.

The Convection mode works best with foods containing little moisture or for very moist food which require a dryer finished product.

For baking, preheat the Combitherm at a temperature of 36°F to 54°F (20°C to 30°C) above the baking temperature required. Once preheated, reset the temperature as required.

A higher cooking temperature results in heavier browning but also results in greater product weight loss. To achieve additional browning use the Moisture Vent Key or set the Browning Feature into the product procedure.

To prevent the surface of food from excessive drying, the fan will not engage if the internal oven temperature is above 212°F (100°C) and the set oven temperature is below 212°F (100°C).

RETHERM MODE

The Retherm mode can be used to rethermalize (regenerate) portioned food on plates, trays, or platters within a short period of time. Steam is automatically injected into the oven compartment as required. Items are brought up to proper serving temperatures without dry edges or condensate forming on the plates.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.

PRESS THE RETHERM MODE KEY.

The last set values or the default settings will appear in the display.

START STOP **PRESS THE START KEY TO COOK AT THE SETTINGS SHOWN.**

TO CHANGE THE SETTINGS SHOWN:

PRESS THE TEMPERATURE KEY.

The cooking temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired cooking temperature.

- 248° to 320°F (120° to 180°C)

TO COOK BY TIME:

PRESS THE TIME KEY.

The cooking time will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the time desired...

or

Set control for continuous operation by rotating the adjustment knob to the right until ∞ appears in the display.

TO COOK BY INTERNAL PRODUCT TEMPERATURE:

PRESS THE CORE TEMP KEY.

The core temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the internal temperature desired and insert the product probe.

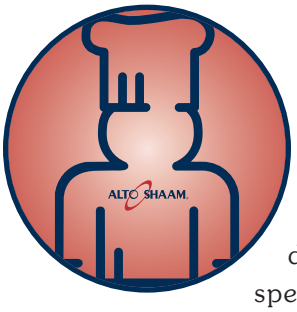
START STOP **PRESS THE START KEY TO BEGIN THE RETHERM MODE.**

- The set cooking temperature will appear in the display. To adjust the set temperature, press the key once and make corrections as required. To display the actual oven temperature, press the key twice.
- The remaining cooking time will appear in the display. To display the set time or to change the set values for time during operation, press the time key once and make corrections as required.
- The actual internal product temperature will appear in the display. To display the set internal product temperature or to change the set values for core temperature during operation, press the key once and make corrections as required.

When the cooking time has expired or the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.

To check the length of time the product has been operating in the core temperature mode, press and hold the time key along with the core temperature key. The time period will appear at the top of the display.



RETHERM MODE CHEF OPERATING TIPS

Since plated meals consist of dissimilar products, there are several important factors to consider in order to produce the finest results. Product density (compactness), thickness, quantity of product on each plate, and quantity of plates all relate to the length of time necessary to reheat. Again, experience is the best method to determine reheating time. Once the time has been determined and recorded for a specific meal, the results will be consistent for future reheating times.

HELPFUL HINTS FOR REHEATING ON THE PLATE

- ALL FOOD COMPONENTS ON THE PLATE SHOULD BE OF SIMILAR DENSITIES.
- ALL FOOD COMPONENTS ON THE PLATE SHOULD BE SIMILAR IN THICKNESS.
- ARRANGE ALL FOOD COMPONENTS EVENLY ON THE PLATE.
- AVOID EXCESSIVE OVERLAPPING OF PRODUCT.
- SAUCES MUST BE HEATED AND ADDED TO PRODUCT AFTER REHEATING.
- A MIXED VARIETY OF MEALS CAN BE REHEATED AT THE SAME TIME.

• À LA CARTE RETHERMALIZATION

À la carte rethermalization is designed to take a single plate from a refrigerated temperature to serving temperature for immediate service. Plates are prepared in advance, covered, and refrigerated. Preheat the Combitherm oven. Remove plate from refrigeration and place in the oven at 275°F (135°C) for an uncovered plate or 300°F (150°C) for a covered plate. Plates with meat components will take more time than plates containing all vegetable components. Follow internal temperature requirements for reheating and allow for override time. After reheating, remove the plate from the oven, add any sauces, garnish, and serve. This process can be repeated as required.

For the most efficient continuous service, it is suggested that the Combitherm oven be dedicated to the rethermalization process during serving hours.

• BANQUET RETHERMALIZATION

Banquet rethermalization is designed for high volume, full or partial load (multiple plate) reheating. For maximum efficiency, it is essential that volume rethermalization be used in conjunction with the utilization of holding cabinets to keep rethermalized food at proper temperatures.

Plates are assembled in advance, covered, and refrigerated or loaded on the roll-in cart and refrigerated. Preheat the Combitherm oven at 275°F (135°C) for uncovered plates or 300°F (150°C) for covered plates. Remove plates or the roll-in cart from refrigeration, load in the oven and set timer as required. Follow internal temperature requirements for reheating and allow for override time. Remove the plates or roll-in cart from the Combitherm and roll into the companion holding cabinet. Relocate the holding cabinet to the banquet service area.

• RETHERMALIZING PREFABRICATED AND VACUUM-PACKED FROZEN FOODS

For bulk product rethermalization, completely defrost product bags in walk-in cooler. DO NOT REMOVE PRODUCT FROM THE BAG. Load thawed bags in preheated oven and rethermalize in the Low Temperature Steam mode until the required internal temperature is reached. Place rethermalized bags in a preheated holding cabinet set at 140° to 165°F (60° to 74°C) until ready for service.

For large volume on-the-plate regeneration, defrost bags in walk-in cooler. Open bags and plate per menu requirements in a (MAXIMUM) 55°F (13°C) refrigerated room. Cover plates, place on Alto-Shaam roll-in cart (trolley), and roll into Combitherm oven preheated at 275°F (135°C).

Regenerate in the Convection mode for 3 to 5 minutes. Switch to the Retherm mode for an additional 3 minutes or more if required. Transfer full trolley to a preheated holding cabinet set at 160°F (71°C) until ready for service. In the case of meat cooked to rare, set the cabinet at 140°F (60°C).

PLATE COVERS MUST BE USED FOR ON-THE-PLATE REGENERATION.

CORE TEMPERATURE PROBE MODE

As an alternative to timer operation, the Core Temperature Probe mode can be used in conjunction with any program mode to cook by sensing internal product temperature. For a more accurate internal temperature, a specialized Combitherm product probe senses temperature from four strategic points and displays a temperature average.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.

INSERT THE PRODUCT PROBE.
The probe must be inserted so that the tip is positioned in the center of the food mass. For liquid or semiliquid foods, suspend the probe in the center of the product and secure the probe wire to the container edge.

SELECT AND PRESS THE REQUIRED COOKING PROGRAM.

PRESS THE TEMPERATURE KEY.
The cooking temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired cooking temperature within the temperature range of the cooking mode selected.

PRESS THE CORE TEMP KEY.
The core temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the internal product cutoff temperature.

PRESS THE START KEY TO BEGIN THE COOKING MODE.

- The actual internal product temperature will appear in the display. To display the set internal product temperature or to change the set values for core temperature during operation, press the key once and make corrections as required.

When the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.

To check the length of time the product has been operating in the core temperature mode, press and hold the time key along with the core temperature key. The time period will appear at the top of the display.

CHEF OPERATING TIPS

To prevent over-cooking, remove product from the oven as soon as the required internal temperature is reached in either the Core Temperature mode or the Core Temperature Delta-T mode. The Core Temperature mode should not be used for cooking thin product items.

DO NOT USE THE PROBE WHEN COOKING THIN PRODUCTS.

DELTA-T CORE TEMPERATURE COOKING

This special program function cooks by internal product temperature with the use of the probe. Unlike the standard core temperature mode, however, the Delta-T oven temperature automatically increases in direct proportion to the internal temperature of the product. The Delta-T mode cooks with convection heat but provides a more gentle method of cooking. Browning occurs toward the end of the cooking cycle.

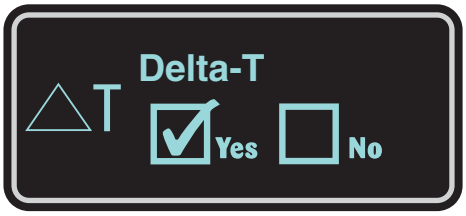
PRESS THE ON/OFF POWER KEY TO THE **ON** POSITION.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the Delta-T △T symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the Delta-T function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

PRESS THE TEMPERATURE KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired Delta-T cooking temperature within the cooking temperature ranges shown below.

PRESS THE CORE TEMP KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the internal product cutoff temperature within the temperature ranges shown below.

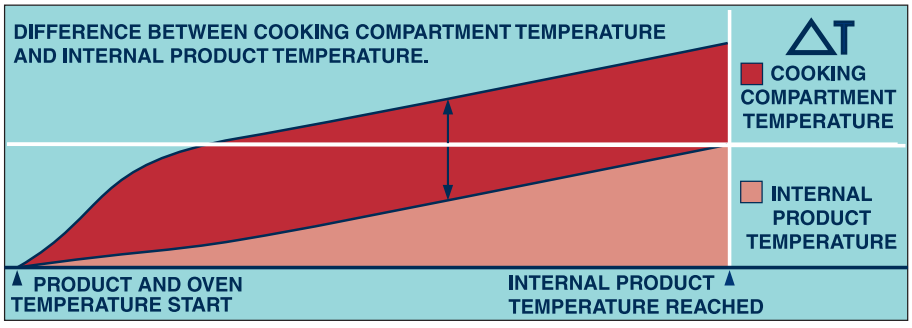
PRODUCT	△T DELTA-T TEMPERATURE △T	CORE TEMPERATURE SETTING
BEEF ROAST	122°F to 131°F (50°C to 55°C)	118°F to 136°F (48°C to 58°C)
TENDERLOIN	122°F to 140°F (50°C to 60°C)	122°F to 140°F (50°C to 60°C)
VEAL & LAMB	122°F to 158°F (50°C to 70°C)	172°F (78°C)
PORK ROAST	122°F to 158°F (50°C to 70°C)	172°F (78°C)
HAM	122°F to 140°F (50°C to 60°C)	172°F (78°C)

THE OVEN WILL BEGIN THE DELTA-T CONVECTION COOKING MODE.

The set Delta-T temperature will appear in the display.
The actual internal product temperature will appear in the display.

When the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.


DIFFERENCE BETWEEN COOKING COMPARTMENT TEMPERATURE AND INTERNAL PRODUCT TEMPERATURE.
△T
COOKING COMPARTMENT TEMPERATURE
INTERNAL PRODUCT TEMPERATURE
PRODUCT AND OVEN TEMPERATURE START
INTERNAL PRODUCT TEMPERATURE REACHED

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

There are several auxiliary functions available through the use of the Chef Function Key. With the exception of the ability to add additional moisture to the oven compartment, that can only be used during the convection mode, all additional functions can be engaged at any time during any cooking mode. Chef Functions can also be programmed into a cooking procedure in oven models that include the deluxe programmable feature. At the end of a cooking mode or program, the oven automatically disengages all operator-set chef functions. These functions, however, do remain programmed and will reengage the next time the programmed procedure is used.

PREHEATING

THE PREHEATING FUNCTION IS ENGAGED IN THE CONVECTION MODE AT A FIXED TEMPERATURE AND TIME. BOTH THE TEMPERATURE AND TIME CAN BE ADJUSTED BY THE OPERATOR TO COMPLY WITH THE REQUIREMENTS OF THE INDIVIDUAL OPERATION.

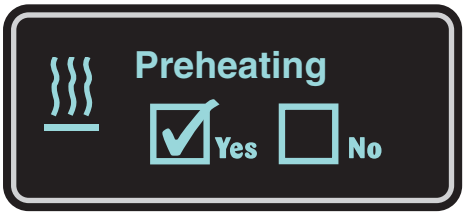
SEE START UP PROCEDURES UNDER DEFAULT/MEMO SETTING Auto Memo .

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the preheat symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the Preheat function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

THE OVEN WILL BEGIN THE PREHEAT FUNCTION.

- The set preheat temperature will appear in the display.
- The set preheat time will appear in the display.
- The preheat symbol will appear in the display.

When the set time and temperature has been reached, a buzzer will sound indicating the end of the preheat function.

- To stop the buzzer, press the start/stop key or open the oven door.

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

GOLD-N-BROWN

The browning feature is an automatic function designed to regulate humidity for additional color to products as needed. This feature is particularly useful for adding color to high moisture products such as chicken and other poultry items or for additional browning of full loads and other moist products. In addition, this feature may be used to add texture to fried items such as French fries or breaded chicken. Gold-n-Brown can be used in both the combination mode and the convection mode and can be programmed into a cooking procedure.

Browning can be used for any product with a set cooking time more than 5-minutes. Depending on the type of product and product load, the browning feature may also slightly increase the set cooking time in order to fully complete the browning function. This is a standard operating condition of this feature.

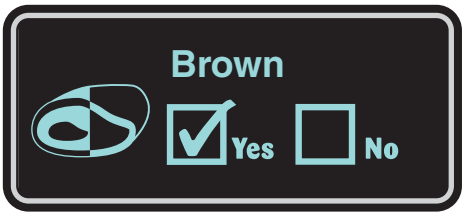
SELECT AND PRESS THE REQUIRED COOKING MODE AND SET MODE FUNCTIONS.

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the browning symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the browning function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

The browning indicator light BROWN will illuminate directly above the display.

START STOP **PRESS THE START KEY.**

The oven will engage the browning feature in the Combination or Convection mode set by the operator.

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

COOL-DOWN FEATURE

The cool-down feature provides the operator with the ability to lower the temperature of the oven compartment at an accelerated pace. This function is useful when it is necessary to immediately change from a high temperature cooking function to a lower temperature function or to the steam program. This function is also useful to help cool the oven compartment in preparation for cleaning.

CHEF OPERATING TIP

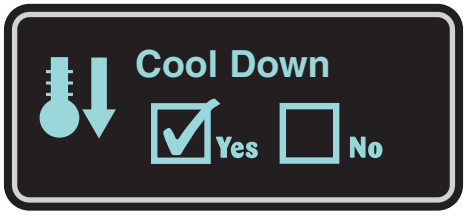
When using the cool-down feature in preparation for cleaning, it is important to remember the temperature in the display indicates the air temperature inside the oven compartment and not the interior walls of the oven. Always make certain to allow the oven walls to cool to a minimum of 140°F (60°C) before spraying the compartment with oven cleaner.

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the cool-down symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the cool-down function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

OPEN THE OVEN DOOR.

The display will indicate the current temperature of the oven.

ROTATE THE ADJUSTMENT KNOB TO SELECT A COOL-DOWN TEMPERATURE WITHIN A RANGE OF 212°F TO 68°F (100°C TO 20°C). THE FACTORY SET DEFAULT IS 122°F (50°C).

The displayed temperature will continue to decline until it reaches the operator set temperature or factory default temperature if not selected by the operator.

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

REDUCED FAN SPEED

The reduced fan speed function is useful for flow-sensitive products such as soufflês and meringues, or any products affected by a high velocity of air movement.

SELECT AND PRESS THE REQUIRED COOKING MODE AND SET MODE FUNCTIONS.

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the fan symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the reduced fan speed function.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

The reduced fan speed indicator light HALF SPEED will illuminate directly above the display.

START STOP **PRESS THE START KEY.**

The oven will start at a reduced fan speed in whatever cooking mode set by the operator.

REDUCED POWER *ELECTRIC MODELS ONLY*

The reduced power function can be used to reduce kitchen power peaks and energy consumption.

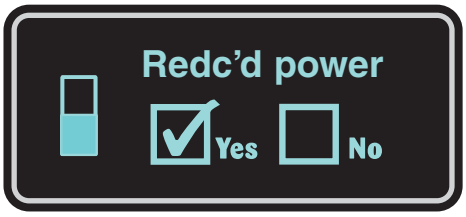
SELECT AND PRESS THE REQUIRED COOKING MODE AND SET MODE FUNCTIONS.

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the reduced power symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the reduced power function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

START STOP **PRESS THE START KEY.**

The oven will operate with reduced power in whatever cooking mode set by the operator.

REDUCED POWER WILL RESULT IN LONGER COOKING TIMES.

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

KEY LOCK

Except as noted, all of the mode keys and functions available on the Combitherm can be locked to prevent unauthorized or accidental changes to the settings.

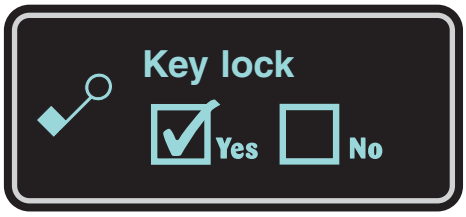
OPERATING ELEMENTS THAT CANNOT BE LOCKED

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the key symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the key lock function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

⇨ The display will indicate PIN 000.

ROTATE THE ADJUSTMENT KNOB TO **PIN 000**.

⇨ PIN 000 is the factory set default to prevent an accidental lock or unlock of the control functions.

PRESS THE CHEF FUNCTION KEY.

⇨ **THE DISPLAY WILL INDICATE "ALL KEYS UNLOCKED."**

SELECT AND PRESS THE FIRST CONTROL FUNCTION TO BE LOCKED.

The display will indicate "LOCK."

If the wrong key has been selected and locked in error, press the same control key again and "UNLOCK" will appear in the display.

Continue in this manner until all desired control functions are locked.

PRESS THE START KEY TO CONFIRM THE LOCKING FUNCTION.

KEY

Whenever any control function has been locked, the key lock symbol will be illuminated within the display.

Whenever any locked control function is pressed, the key lock symbol will flash and an audible signal will sound.

KEY UNLOCK

FOLLOW THE SAME PROCEDURE AS ABOVE UNTIL THE DISPLAY INDICATES **"ALL KEYS UNLOCKED."**

To unlock the Chef Function key.

PRESS THE POWER KEY TO TURN THE OVEN *OFF*.

PRESS THE CHEF FUNCTION KEY

ROTATE THE ADJUSTMENT KNOB TO **PIN 000** TO DISENGAGE ALL LOCK FUNCTIONS.

PRESS THE CHEF FUNCTION KEY. **THE DISPLAY WILL INDICATE "ALL KEYS UNLOCKED."**

CHEF FUNCTION KEY

STEAM INJECTION

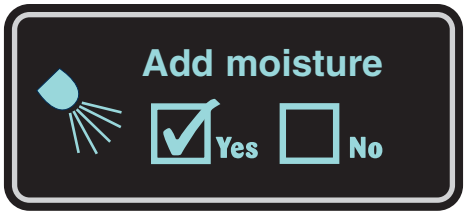
Additional steam can be added to the cooking compartment at any time when cooking in the convection mode.

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the steam injection symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the steam injection function.



PRESS THE CHEF FUNCTION KEY TO ACTIVATE THE STEAM INJECTION FUNCTION.

Additional steam is injected into the oven compartment for a time period of approximately 15 seconds.

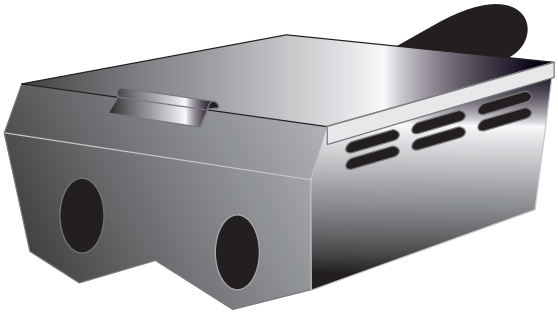
NOTE: Steam injection cannot be programmed through the control keypad, but can be programmed through optional Kitchen Management software.

AUXILIARY FUNCTIONS

GENERAL SMOKER OPERATION

SMOKING FUNCTION

ON EQUIPPED MODELS



LOAD WOOD CHIPS.

- Measure one container full of dry wood chips.
- Soak dry chips in water for 5 minutes.
- Shake excess water off wood chips.
- Place moistened chips back into the container and position the container securely on the two prongs located on the interior back panel of the oven.

A full container of wood chips will produce smoke for an approximate period of one to two hours depending on the cooking temperature being used for the selected product. The tested procedures in this manual for many of the products that are appropriate for smoking provide complete product smoke penetration and full smoke flavor.

AVAILABLE FROM ALTO-SHAAM		
WOOD CHIPS	**20 POUND BULK PACKS**	
THE TOTAL WEIGHT OF WOOD CHIP BULK PACKS MAY VARY DUE TO HIGH MOISTURE CONTENT WHEN PACKAGED.	APPLE	WC-22543
	HICKORY	WC-2829
	CHERRY	WC-22541
	SUGAR MAPLE	WC-22545

CHEF OPERATING TIP

Products such as ribs that require heavier smoke penetration to reach full smoke flavor should remain in the oven after cooking has been completed. Do not open the oven door. Set the oven in the Low Temperature Steam Mode at 140° to 160°F (60° to 71°C) and allow the product to remain in the oven for a period of one hour.

If you would like assistance, you are invited to contact an Alto-Shaam corporate chef for recommendations.

NOTE: Always keep the OVEN DOOR CLOSED whenever operating the smoking function.

The Combitherm Smoker can be operated without using the smoking function. After using the oven as a smoker, however, it is necessary to clean the oven in order to prevent a transfer of smoke flavor to non-smoked products. Cleaning instructions are provided in this manual.

CAUTION

DO NOT OPEN THE OVEN DOOR DURING THE SMOKING FUNCTION. The introduction of outside air in the oven compartment may cause the wood chips to flame.

WARNING

THE USE OF IMPROPER MATERIALS FOR THE SMOKING FUNCTION COULD RESULT IN DAMAGE, HAZARD, EQUIPMENT FAILURE, OR COULD REDUCE THE OVERALL LIFE OF THE OVEN.

DO NOT USE SAWDUST FOR SMOKING.
DO NOT USE WOOD CHIPS SMALLER THAN THUMBNAIL SIZE.

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

SMOKER FEATURE

ON EQUIPPED MODELS U.S. PAT. 7,157,668

The ability to smoke product, hot or cold, is offered on all boiler-free electric models and on all gas models with the exception of the 10•20ESGAS, the 12•18ESGAS, and the 20•20ESGAS. The smoking function can be engaged in either the Combination mode or the Convection mode of operation. The smoking function cannot be operated when the oven is operating in the steam mode or the retherm mode.

SELECT AND PRESS THE REQUIRED COOKING MODE (CONVECTION OR COMBINATION).

TO SET COOK TEMPERATURE:

PRESS THE TEMPERATURE KEY.

The cooking temperature will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the desired cooking temperature.

TO SET COOK TIME:

PRESS THE TIME KEY.

The cooking time will appear highlighted within the oven display.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the time desired.

or

Set control for continuous operation by rotating the adjustment knob to the right until desired time appears in the display.

TO ACTIVATE SMOKER:

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the smoker symbol is highlighted within the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the Smoker function.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

PRESS THE START KEY TO ACTIVATE THE SMOKER FUNCTION.

CAUTION
METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

AUXILIARY FUNCTIONS

CHEF FUNCTION KEY

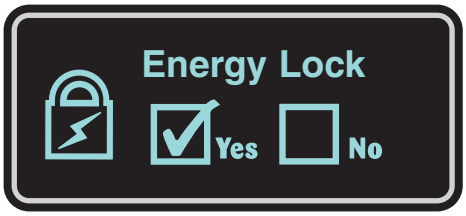
ENERGY LOCK

FOR USE WITH OVENS INSTALLED UNDER A VENTLESS HOOD.

Energy lock is a safety feature to prevent the oven control from being operated unless the ventless oven hood is in operation. The energy lock indicator light will illuminate in the control display if this situation occurs and the oven control will be inoperable until the oven hood is reset and operating.

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the energy lock symbol is highlighted within the display.



PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the energy lock function.

PRESS THE CHEF FUNCTION KEY TO ACTIVATE THE ENERGY LOCK FUNCTION.

The oven control will not operate when power is engaged until the ventless hood is reset and operating.

Press the "Combi Reset" button on the ventless hood to energize the hood and return the oven control to normal operation.

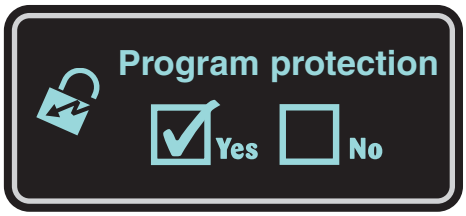
ENERGY PROTECTION *FURNISHED UPON REQUEST AS A FACTORY INSTALLED OPTION*

In locations where the electric service is regulated with a device installed on site, this function will protect full power to the Combitherm for the duration of the next operator set program or cooking mode. This function cannot be set during an active cooking mode or program. Power interruption may affect all other electric service within the regulated location.

FOR USE ONLY IN THOSE COUNTRIES WHERE THE LOCAL ELECTRIC UTILITY PROVIDES AN ENERGY OPTIMIZATION SYSTEM INSTALLED ON SITE.

PRESS THE CHEF FUNCTION KEY.

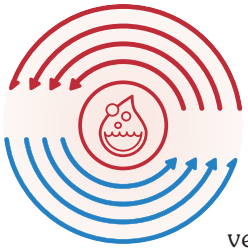
Rotate the adjustment knob until the program protection symbol is highlighted within the display.



PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the energy protection function.

PRESS THE CHEF FUNCTION KEY TO ACTIVATE THE PROGRAM PROTECTION FUNCTION.



ADVANCE FEATURES

MOISTURE VENT KEY

This function provides the operator with the ability to eliminate excessive moisture from the oven compartment and the exterior surface of the foods being cooked. The moisture vent key is designed to operate in both the Combination mode and in the Convection cooking mode. On deluxe models, this function can also be made part of a cooking program.

PRESS THE MOISTURE VENT KEY TO REDUCE STEAM AND MOISTURE LEVELS IN THE OVEN.

The illuminated, blue portion of the Moisture Vent Key will go out. Open vent

symbol will illuminate within the display.

PRESS THE MOISTURE VENT KEY TO DISENGAGE THE MOISTURE VENT KEY FUNCTION.

The blue portion of the Moisture Vent Key will illuminate. Open vent

symbol within the display will extinguish.

AT THE END OF A COOKING MODE, THE MOISTURE VENT KEY WILL AUTOMATICALLY DISENGAGE.

ADVANCE FEATURES

QUICK PROGRAMMING

This quick programming function provides the operator with the ability to temporarily program a cooking procedure using multiple cooking modes, along with any auxiliary functions desired. Quick programming is particularly useful when cooking several batches of the same product back-to-back and will remain programmed until any new cooking mode key is pressed.

PRESS AND HOLD THE FIRST REQUIRED COOKING MODE FOR A PERIOD OF 3-SECONDS.

01/01 will appear at the top of the display indicating STEP ONE.
The temperature and time will appear directly below 01/01.

PRESS THE TEMPERATURE KEY.

The temperature will become highlighted within the display.

ROTATE THE ADJUSTMENT KNOB TO SELECT THE REQUIRED TEMPERATURE.

PRESS THE TIME KEY OR THE CORE TEMP KEY .

The time or core temperature will become highlighted within the display.

ROTATE THE ADJUSTMENT KNOB TO SELECT THE REQUIRED SETTING.

PRESS AND HOLD THE SECOND REQUIRED COOKING MODE FOR A PERIOD OF 3-SECONDS.

Follow the above directions until all steps have been entered.

PRESS THE START KEY.

The oven will begin cooking as programmed, automatically switching to each cooking mode entered. Each step entered will be indicated in the display as the oven cycles from mode to mode. **EXAMPLE: 01/05 = STEP ONE OF FIVE**
02/05 = STEP TWO OF FIVE

PRESS THE STOP KEY OR OPEN THE OVEN DOOR WHEN THE BUZZER SOUNDS AT THE END OF THE PROGRAM.

THIS PROGRAM WILL REMAIN IN TEMPORARY MEMORY UNTIL ANY NEW COOKING MODE KEY IS PRESSED. QUICK PROGRAMMING CAN BE SAVED AND STORED IN MEMORY ON DELUXE MODELS ONLY.

ADVANCE FEATURES

Auxiliary Functions are made part of the control as an additional convenience to the operator, however, these functions are not necessary for the general operation of the Combitherm oven.

START TIME PRESELECT

Start time preselect provides the operator with the ability to program a fixed start time for oven operation. This function can be operated when cooking in any mode and is offered as a convenience to set an advanced start-up of the preheating function prior to the beginning of the production day. It can also be used for advance start-up for non-refrigerated items such as baked potatoes.

CAUTION

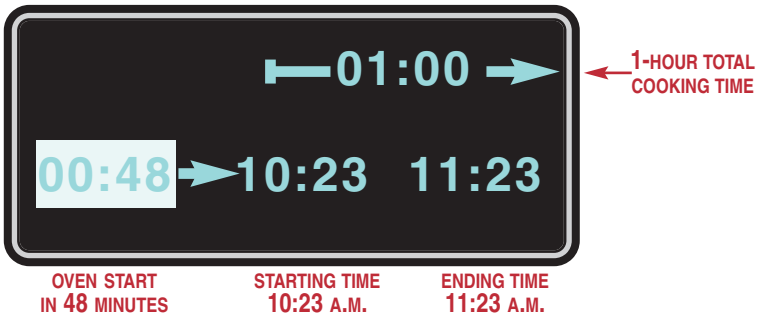
To prevent food spoilage, this feature is not recommended for use with any raw product that requires temperature maintenance at or under 40°F (4°C).

SELECT AND PRESS THE REQUIRED COOKING MODE.

Set all mode functions such as temperature, time, core temperature, etc. The time entered in the initial operational mode setup will automatically be reflected on the start time preselect display.

PRESS AND HOLD THE TIME KEY WHILE TURNING THE ADJUSTMENT KNOB.

The display will indicate the current programmed settings in 24-hour (military) time.



A.M.		P.M.	
1:00	1:00	1:00	13:00
2:00	2:00	2:00	14:00
3:00	3:00	3:00	15:00
4:00	4:00	4:00	16:00
5:00	5:00	5:00	17:00
6:00	6:00	6:00	18:00
7:00	7:00	7:00	19:00
8:00	8:00	8:00	20:00
9:00	9:00	9:00	21:00
10:00	10:00	10:00	22:00
11:00	11:00	11:00	23:00
12:00	12:00	12:00	24:00

The cooking time shown (UPPER RIGHT) indicates automatic oven operation for a period of one hour and appears only when cooking by time as entered in the initial operational mode setup.

TO CHANGE THE STARTING TIME, PRESS AND HOLD THE TIME KEY AND TURN THE ADJUSTMENT KNOB.

Rotate the adjustment knob to select the starting time desired. As the starting time is changed, the countdown for oven start (LEFT) and the ending time will automatically adjust accordingly.

RELEASE THE TIME KEY AFTER THE REQUIRED STARTING TIME HAS BEEN SELECTED.

The oven preselect start time display will immediately begin a countdown and will automatically start the oven when zero is reached.

THIS FUNCTION CAN BE CANCELLED AT ANY TIME BY PRESSING THE START/STOP KEY .

COMBITHERM PROGRAMMING SYMBOLS

RECORD

COPY PROCEDURE

INSERT STEP

SAVE

DELETE PROCEDURE

APPEND STEP

NEW PROCEDURE

EDIT PROCEDURE

DELETE STEP

RECORDING A COOKING PROCEDURE

Recording a cooking procedure provides the operator with the ability to test and verify all set operating parameters for the selected cooking modes and to make any necessary adjustments before saving and storing the procedure into memory.

PRESS THE PROGRAM INSTALL AND EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the record symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL KEY TO CONFIRM THE SELECTION.

The display will indicate **"Recorder ON"** and the record symbol will appear in the display.

SELECT AND PRESS THE ***FIRST*** REQUIRED COOKING MODE.

Set all cooking mode parameters for temperature, time, or internal product temperature plus auxiliary functions, and advanced features for the first step to be recorded.

PRESS THE START KEY TO BEGIN THE FIRST RECORDED STEP.

When the cooking time has expired or the operator set internal temperature has been reached, a buzzer will sound indicating the end of the operating mode.

- To stop the buzzer, press the start/stop key or open the oven door.

SELECT AND PRESS THE ***SECOND*** REQUIRED COOKING MODE.

Set all cooking mode parameters for temperature, time, or internal product temperature plus auxiliary functions, and advanced features for the second step to be recorded.

PRESS THE START KEY TO BEGIN THE SECOND RECORDED STEP.

Continue to record cooking modes as indicated for up to 20 steps.

All cooking mode steps entered with **"Recorder ON"** will remain in memory, in the order entered, until the recorder is turned off. Recorded procedures will not be lost or affected by pressing the stop/start key .

TO CANCEL THE RECORDING FUNCTION

WITH THE "Recorder ON" FUNCTION ACTIVATED, PRESS THE PROGRAM INSTALL AND EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the record symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL KEY TO CONFIRM THE SELECTION.

"Recorder OFF" will appear in the display and the oven can be operated normally.

SAVING A RECORDED COOKING PROCEDURE

When the previous cooking mode steps recorded produce satisfactory results, the recorded cooking procedure can be saved in memory for future use.

PRESS THE PROGRAM INSTALL/EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the save symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL/EDIT KEY TO CONFIRM THE SELECTION.

Name the procedure. Rotate the adjustment knob to select the first letter of the procedure name. Press the up △ and down ▽ arrow key to select second letter position and rotate the adjustment knob to select the second letter. Continue this procedure for each subsequent alpha character, number, or symbol required.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE PROCEDURE NAME.

The display will indicate the first unoccupied memory location within the programmed menu. If an alternate location is desired, rotate the adjustment knob to highlight another unoccupied, numbered memory location within the programmed menu. If an *occupied* location is selected, the existing procedure will be replaced by the new procedure.

PRESS THE PROGRAM INSTALL/EDIT KEY TO CONFIRM THE PROCEDURE LOCATION.

The display will indicate "please wait" and will return to the main menu display. The procedure has now been saved in the selected location and can be verified by rotating the adjustment knob to the saved procedure.

To review the set operating parameters of any programmed procedure, press the programmed menu key and rotate the adjustment knob until the procedure to be reviewed is highlighted in the display. Press the chef function key. The cooking mode key for the first step will illuminate and the program mode, temperature, time, or core temperature will appear in the display. Rotate the adjustment knob to review each step.

Deluxe PROGRAM FUNCTION

CREATING A NEW COOKING PROCEDURE

Cooking procedures for items prepared on a regular basis can be stored in memory.

PRESS THE PROGRAM INSTALL/EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the new procedure symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL/EDIT KEY TO CONFIRM THE SELECTION.

All cooking mode keys will begin to flash and 01/01 will appear at the top of the display indicating the first cooking step.

SELECT AND PRESS THE FIRST REQUIRED COOKING MODE.

Set cooking mode functions for temperature and time, or internal core temperature. Add any auxiliary functions along with the moisture venting feature. Follow the basic operating instructions located in this booklet. Auxiliary functions can be added by pressing the chef function key after entering the operating mode parameters for each individual step and pressing the up △ and down ▽ arrow keys or rotating the adjustment knob to select the auxiliary function required. Press the chef function key to confirm the auxiliary function setting(s) for each step.

PRESS THE PROGRAM INSTALL/EDIT KEY TO CONFIRM THE FIRST STEP.

SELECT AND PRESS THE SECOND REQUIRED COOKING MODE.

The display will indicate 02/02 indicating the second cooking mode step. Set all cooking mode functions as indicated above.

PRESS THE PROGRAM INSTALL/EDIT KEY TO CONFIRM THE SECOND STEP.

CONTINUE WITH THE ABOVE INSTRUCTIONS UNTIL ALL MODE STEPS AND FUNCTIONS ARE ENTERED. UP TO 20 COOKING MODE STEPS CAN BE SAVED IN A SINGLE PROCEDURE.

AFTER ALL FUNCTIONS ARE ENTERED,
PRESS THE PROGRAM INSTALL/EDIT KEY TO CONFIRM THE NEW PROCEDURE.

Name the procedure. Rotate the adjustment knob to select the first letter of the procedure name. Press the up △ and down ▽ arrow key to select second letter position and rotate the adjustment knob to select the second letter. Continue for each subsequent alpha character, number, or symbol required.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE PROCEDURE NAME.

Rotate the adjustment knob to highlight an unoccupied, numbered memory location within the programmed menu. If an occupied location is selected, the existing procedure will be replaced by the new procedure.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE PROGRAM INSTALLATION.

The display will indicate “please wait” and will return to the main menu display.

START A PROGRAMMED PROCEDURE

PRESS THE PROGRAMMED MENU KEY.

All stored procedures are listed alphabetically or numerically as selected by the operator in the initial oven start up procedures under the program index category.

Rotate the adjustment knob until the required procedure is highlighted in the display.

START STOP PRESS THE START KEY.

To review the set parameters of any programmed procedure, press the programmed menu key and rotate the adjustment knob until the procedure to be reviewed is highlighted in the display. Press the chef function key. The cooking mode, temperature, time, or core temperature will appear in the display.

COPY A PROGRAMMED PROCEDURE

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob until the procedure to be copied is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the copy» procedure symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY.

The display will select an empty, numbered location to insert the duplicate copy.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE DUPLICATION.

The display will indicate “please wait” and will return to the main menu display.

An exact duplicate of the selected procedure has been inserted in the new location under the same name as the original procedure. The duplicate can be renamed and edited as required. *See additional editing instructions.*

DELETE A PROGRAMMED PROCEDURE

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob to highlight the procedure to be deleted.

PRESS THE PROGRAM INSTALL/EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the delete symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE SELECTION.

The programmed procedure has been deleted from the menu.

Deluxe PROGRAM FUNCTION

PROGRAM EDITING

EDIT A PROGRAMMED PROCEDURE

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob until the procedure to be edited is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the edit symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE SELECTION.

The display will indicate the procedure name, cooking step number (EXAMPLE: **"01/05" = STEP ONE OF FIVE**), and operating parameters for temperature, time, or internal product temperature.

To change the operating parameters for the first step:
Press the cooking temperature key and rotate the adjustment knob.
Press the time key and rotate the adjustment knob to change the cooking time.
Press the core temperature key and rotate the adjustment knob to change the core temp.

Auxiliary functions can be added by pressing the chef function key after entering the operating mode parameters for each individual step and pressing the up △ and down ▽ arrow keys or rotate the adjustment knob to select the auxiliary function required. Press the chef function key to confirm the auxiliary function setting.

Press the down arrow key for each subsequent step of the procedure and make changes to each step as required.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE SETTING.

The display will indicate the same name as the original procedure, minus the last letter. Install the last letter by rotating the adjustment knob to the correct letter.

Rename the procedure by pressing the down arrow key to clear the display. Press the up △ and down ▽ arrow key to select each individual alpha character, number, or symbol. Rotate the adjustment knob to select each subsequent letter.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE NAME.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO INSTALL THE PROGRAM.

To review the set operating parameters of any programmed procedure, press the programmed menu key and rotate the adjustment knob until the procedure to be reviewed is highlighted in the display. Press the chef function key. The cooking mode key for the first step will illuminate and the program mode, temperature, time, or core temperature will appear in the display. Rotate the adjustment knob to review each step.

Deluxe PROGRAM FUNCTION

PROGRAM EDITING

INSERT A PROGRAMMED PROCEDURE STEP

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob until the procedure to add a new step is highlighted in the display.

PRESS THE PROGRAM INSTALL KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the edit procedure symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE SELECTION.

The display will indicate the procedure name, cooking step number and operating parameters for temperature, time, or internal product temperature.

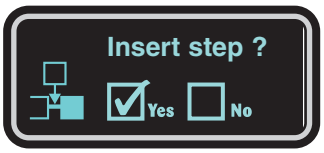
Press the up △ or down ▽ arrow keys to select the step *immediately following* the position wanted for the new step.

PRESS THE CHEF FUNCTION KEY.

A choice of editing symbols and auxiliary functions will appear in the display. Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the insert step symbol.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for step insertion.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTION.

All cooking modes will begin to flash. Select and press the cooking mode to be inserted. Press and set cooking temperature, time, or internal core temperature. Auxiliary functions can be added by pressing the chef function key after entering the operating mode parameters for each individual step and pressing the up △ and down ▽ arrow keys or rotating the adjustment knob to select the auxiliary function required. Press the chef function key to confirm the auxiliary function setting. Add the moisture vent key function if required.

PRESS THE INSTALL/EDIT KEY TO CONFIRM THE SELECTED MODE AND FUNCTIONS.

The display will indicate the procedure name minus the last letter. Reinsert the last letter with the adjustment knob or use the up △ and down ▽ arrow keys in conjunction with the adjustment knob to rename the procedure.

PRESS THE INSTALL/EDIT KEY TO CONFIRM THE NAME.

PRESS THE INSTALL/EDIT KEY TO INSERT THE NEW STEP INTO THE PROCEDURE.

The display will indicate "please wait" and will return to the main menu display.

TO VERIFY THE INSERTED STEP, PRESS THE CHEF FUNCTION KEY WHILE THE ALTERED PROCEDURE IS HIGHLIGHTED. ROTATE THE ADJUSTMENT KNOB TO REVIEW ALL SET PARAMETERS.

Deluxe PROGRAM FUNCTION

PROGRAM EDITING

APPEND A PROGRAMMED PROCEDURE STEP

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob until the procedure to include a final step is highlighted in the display.

PRESS THE PROGRAM INSTALL KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the edit procedure symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE SELECTION.

The display will indicate the procedure name, cooking step number and operating parameters for temperature, time, or internal product temperature.

Press the up △ or down ▽ arrow keys to select the last step of the procedure.

PRESS THE CHEF FUNCTION KEY.

A choice of editing symbols and auxiliary functions will appear in the display. Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the append step symbol.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for append step.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTION.

All cooking modes will begin to flash. Select and press the cooking mode to be appended. Press and set cooking temperature, time, or internal core temperature. Auxiliary functions can be added by pressing the chef function key after entering the operating mode parameters for each individual step and pressing the up △ and down ▽ arrow keys or rotating the adjustment knob to select the auxiliary function required. Press the chef function key to confirm the auxiliary function setting. Add the moisture vent key function if required.

PRESS THE INSTALL/EDIT KEY TO CONFIRM THE SELECTED MODE AND FUNCTIONS.

The display will indicate the procedure name minus the last letter. Reinsert the last letter with the adjustment knob or use the up △ and down ▽ arrow keys in conjunction with the adjustment knob to rename the procedure.

PRESS THE INSTALL/EDIT KEY TO CONFIRM THE NAME.

PRESS THE INSTALL/EDIT KEY TO INSERT THE NEW STEP INTO THE PROCEDURE.

The display will indicate "please wait" and will return to the main menu display.

TO VERIFY THE INSERTED STEP, PRESS THE CHEF FUNCTION KEY WHILE THE ALTERED PROCEDURE IS HIGHLIGHTED. ROTATE THE ADJUSTMENT KNOB TO REVIEW ALL SET PARAMETERS.

PROGRAM EDITING

DELETE A PROGRAMMED STEP

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob to highlight the procedure in which a step is to be deleted.

PRESS THE PROGRAM INSTALL KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob until the edit procedure symbol is highlighted in the display.

PRESS THE PROGRAM INSTALL AND EDIT KEY TO CONFIRM THE SELECTION.

The display will indicate the procedure name, cooking step number and operating parameters for temperature, time, or internal product temperature.

Press the up △ or down ▽ arrow keys to select the step to be deleted.

PRESS THE CHEF FUNCTION KEY.

A choice of editing symbols and auxiliary functions will appear in the display. Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select the delete step symbol.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTION.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for step deletion.

PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SELECTION.

PRESS THE INSTALL/EDIT KEY TO CONFIRM THE DELETION.

The display will indicate the name of the procedure as originally programmed.

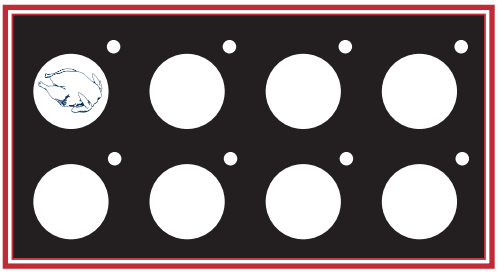
PRESS THE INSTALL/EDIT KEY TO CONFIRM THE NAME.

PRESS THE INSTALL/EDIT KEY TO REMOVE THE DELETED STEP FROM THE PROGRAM.

The display will indicate "please wait" and will return to the main menu display.

TO VERIFY THE STEP HAS BEEN DELETED, PRESS THE CHEF FUNCTION KEY WHILE THE DELETE STEP PROCEDURE IS HIGHLIGHTED. ROTATE THE ADJUSTMENT KNOB TO REVIEW ALL SET PARAMETERS.

RAPID-TOUCH™ KEYS



Rapid-Touch programmed quick-keys provide the operator with the ability to assign procedures used on a regular basis to individual keys that can be identified with a picture graphic resembling the product. Various picture graphics are included with the Combitherm oven.

TO ASSIGN A PROCEDURE TO A PROGRAM RAPID-TOUCH KEY

PRESS THE PROGRAMMED MENU KEY.

Rotate the adjustment knob to highlight the procedure to be assigned to Rapid-Touch operation.

PRESS AND HOLD THE SELECTED RAPID TOUCH KEY FOR A PERIOD OF THREE SECONDS.

When the buzzer sounds, the programmed procedure has been assigned to the Rapid-Touch key selected.

Identify the Rapid-Touch key with a corresponding picture graphic.

TO OPERATE A PROCEDURE ON RAPID-TOUCH KEY

PRESS AN ASSIGNED RAPID TOUCH KEY.

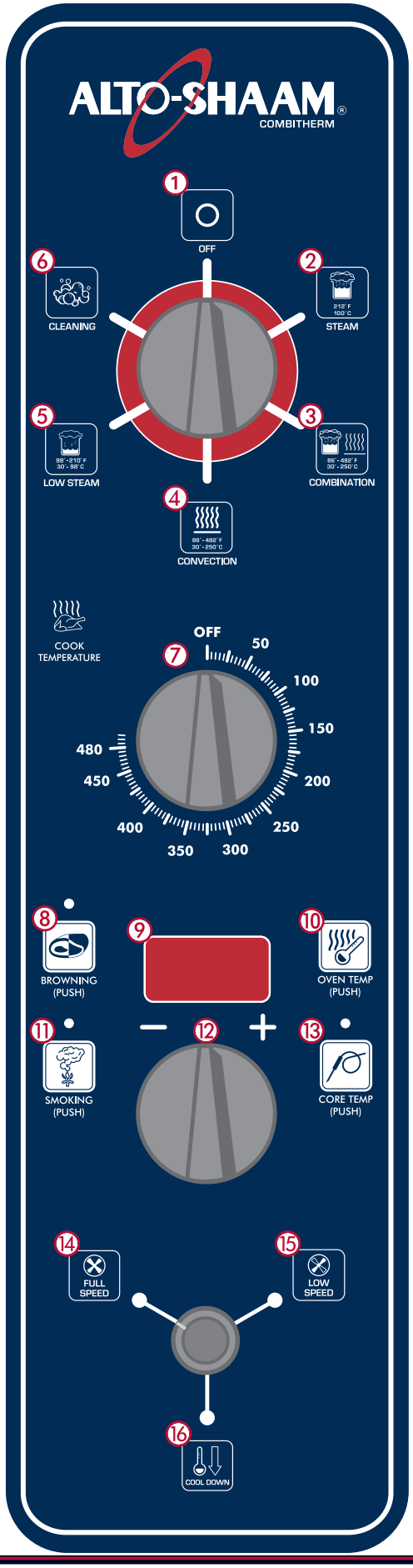
The indicator light to the upper right of the selected Rapid-Touch key will illuminate. The oven will begin operating as programmed with the display indicating the name of the procedure, the step number, the total number of steps, and the temperature, time, or internal product temperature.

When the cooking time for all programmed modes has expired or the operator set internal temperature has been reached, a buzzer will sound indicating the completion of the program.

- To stop the buzzer, press the start/stop key or open the oven door.

Once a Rapid-Touch key is programmed with a procedure, care should be taken not to press and hold the programmed key with another procedure highlighted in the display by means of the programmed menu key. The highlighted procedure will override the Rapid-Touch key program and the picture graphic will no longer match the procedure.

S-CONTROL PANEL IDENTIFICATION



① OFF POSITION

Maintains oven in a stand-by mode.

② STEAM

The oven will operate at a fixed steam temperature of 212° F (100°C).

③ COMBINATION

A combination of steam and convection heat to cook at a temperature between 86°F and 482°F (30°C to 250°C) to be set by the operator.

④ CONVECTION

Convection heat to cook without steam at a temperature between 86°F and 482°F (30°C and 250°C) to be set by the operator.

⑤ LOW STEAM

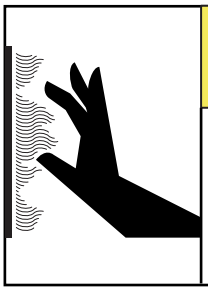
Low temperature steaming within an operator set temperature range of 98°F to 210°F (30°C and 98°C).

⑥ CLEANING FUNCTION

An automatic cleaning cycle to heat the oven to the correct temperature, followed by a manual application of Combitherm Oven Cleaner and a 10 minute steam cleaning cycle.
An automatic boiler flush is initiated on boiler equipped models and a vinegar decalcification can also be conducted.

⑦ COOKING TEMPERATURE DIAL

To be manually set by the operator to the cooking temperature required.



CAUTION

METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

S-CONTROL PANEL IDENTIFICATION

⑧ GOLD-N-BROWN™

The browning feature is an automatic function designed to regulate humidity for additional color to products as needed. This feature is particularly useful for adding color to high moisture products such as chicken and other poultry items or for additional browning of full loads and other moist products. In addition, this feature may be used to add texture to fried items such as French fries or breaded chicken. Gold-n-Brown can be used in both the combination mode and the convection mode and can be programmed into a cooking procedure.

⑨ OVEN DISPLAY

Indicates time remaining, interior oven temperature, or internal product temperature.

⑩ OVEN TEMPERATURE

To be pressed to display interior oven temperature.

⑪ SMOKING FEATURE (OPTION)

Provides the ability to smoke product, hot or cold, on all boiler-free electric models and on all gas models. The smoking function can be engaged in either the Combination mode or the Convection mode of operation. The smoking function cannot be operated when the oven is operating in either steam mode or low temperature steam mode.

⑫ COOKING TIMER

⊖ Turned to the left for continuous cooking time or to decrease time in increments of one minute.
⊕ Turn to the right to set and increase time in increments of one minute

⑬ CORE TEMPERATURE PROBE (OPTION)

Used to set the required internal product temperature.

⑭ FULL SPEED FAN POSITION

⑮ HALF SPEED FAN POSITION

⑯ OVEN COOL-DOWN POSITION

Assists in cooling the oven at an accelerated pace when changing from high to lower temperature cooking. **The oven door should be open when using this feature.**

S-CONTROL OPERATION

The simplified, S-Control Combitherm oven includes all of the basic operating functions of the standard, ES-Series, Combitherm oven models. Oven operation is initiated with the use of rotary dials. Additional functions are initiated by pressing the represented function symbol.

All of the cooking procedures shown in this guide can be adapted for use with S-Control models by manually setting the suggested cooking mode, time, and temperature indicated.

PREHEATING

1. Rotate the **Cooking Mode** dial to the convection mode.
2. Rotate the **Cooking Temperature** dial to the preheating temperature required.
3. Rotate the **Cooking Timer** dial to the preheating time desired.
   - ⊖ Turn to the left for continuous time or to decrease time in increments of one minute.
   - ⊕ Turn to the right to set and increase time in increments of one minute.
4. When preheated, the oven can be operated in any cooking mode required.

CORE TEMPERATURE (OPTION)

1. Rotate the **Cooking Mode** dial to the required cooking mode.
2. Rotate the **Cooking Temperature** dial to the cooking temperature required.
3. Press the **Core Temperature** symbol. The letters "Cor" will appear in the display.

4. When "Cor" appears in the display, the timer dial will convert to internal product temperature.
   Rotate the **Cooking Timer** dial to the internal product temperature desired.
   - ⊖ Turn to the left to decrease temperature in increments of one degree.
   - ⊕ Turn to the right to increase temperature in increments of one degree.
5. In 3-seconds, oven will begin the cook and the display will indicate the internal product temperature reading of the probe.
6. One minute after the product reaches the set internal product temperature, a buzzer will sound indicating the end of the operating mode.

   TO STOP THE BUZZER, OPEN THE OVEN DOOR OR TURN THE COOKING MODE DIAL TO THE OFF POSITION.

CHEF OPERATING TIPS

The Core Temperature should not be used for cooking thin products.

WARNING

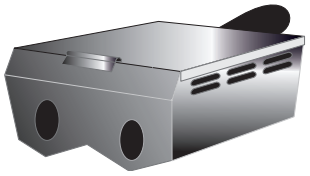
DO NOT HANDLE PANS CONTAINING LIQUID OR SEMILIQUID PRODUCTS POSITIONED ABOVE THE EYE LEVEL OF THE OPERATOR. SUCH PRODUCTS CAN SCALD AND CAUSE SERIOUS INJURY.

S-CONTROL OPERATION

GOLD-N-BROWN™

BROWNING (PUSH)

Press the GOLD-N-BROWN browning symbol at the start of any cooking cycle in the combination mode or convection mode to automatically add additional product color.



SMOKING (OPTION)

LOAD WOOD CHIPS.

- Measure one container full of dry wood chips.
- Soak dry chips in water for 5 minutes.
- Shake excess water off wood chips.
- Place moistened chips back into the container and position the container securely on the two prongs located on the interior back panel of the oven.

AVAILABLE FROM ALTO-SHAAM		
WOOD CHIPS	**20 POUND BULK PACKS**	
	APPLE	WC-22543
THE TOTAL WEIGHT OF WOOD CHIP BULK PACKS MAY VARY DUE TO HIGH MOISTURE CONTENT WHEN PACKAGED.	HICKORY	WC-2829
	CHERRY	WC-22541
	SUGAR MAPLE	WC-22545

SMOKING feature may be started at the beginning of any cooking cycle in the Combination mode or Convection mode.

Push the Smoker icon key.

A full container of wood chips will produce smoke for an approximate period of one to two hours depending on the cooking temperature being used for the selected product. The tested procedures in this manual for many of the products that are appropriate for smoking provide complete product smoke penetration and full smoke flavor.

When the cooking cycle is completed, a buzzer will sound indicating the end of the preheat function.

TO STOP THE BUZZER, OPEN THE OVEN DOOR OR TURN THE COOKING MODE DIAL TO THE OFF POSITION.

CHEF OPERATING TIP

Products such as ribs that require heavier smoke penetration to reach full smoke flavor should remain in the oven after cooking has been completed. Do not open the oven door. Set the oven in the Low Temperature Steam Mode at 140° to 160°F (60° to 71°C) and allow the product to remain in the oven for a period of one hour.

NOTE: Always keep the OVEN DOOR CLOSED whenever operating the smoking function.

The Combitherm Smoker can be operated without using the smoking function. After using the oven as a smoker, however, it is necessary to clean the oven in order to prevent a transfer of smoke flavor to non-smoked products. Cleaning instructions are provided in this manual.

WARNING

HOT STEAM CAUSES BURNS

ROTATE THE DOOR HANDLE TO THE FIRST OPEN ROTATION POSITION *ONLY*. STAND BACK AND WAIT UNTIL THE STEAM IS VENTED BEFORE FULLY OPENING THE DOOR.

NOTES

COMBITHERM OVEN PREHEAT

PREHEATING IS ENGAGED AT A FIXED TIME AND TEMPERATURE IN THE CONVECTION MODE. BOTH THE TEMPERATURE AND TIME CAN BE ADJUSTED BY THE OPERATOR TO COMPLY WITH THE REQUIREMENTS OF THE INDIVIDUAL OPERATION.

SEE START UP PROCEDURES UNDER DEFAULT/MEMO SETTING Auto Memo .

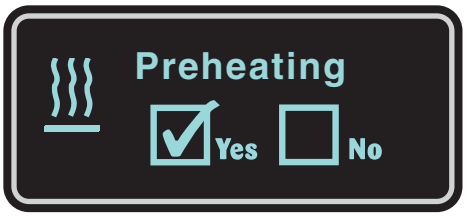
PREHEATING

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the preheat symbol is highlighted in the display.

PRESS THE CHEF FUNCTION KEY.

Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES" for the Preheat function.



PRESS THE CHEF FUNCTION KEY TO CONFIRM THE SETTING.

THE OVEN WILL BEGIN THE PREHEAT FUNCTION.

The set preheat temperature will appear in the display.

The set preheat time will appear in the display.

The preheat symbol will appear in the display.

When the set time and temperature have been reached, a buzzer will sound indicating the end of the preheat function.

- To stop the buzzer, press the start/stop key or open the oven door.

WARNING

HOT STEAM CAUSES BURNS

ROTATE THE DOOR HANDLE TO THE FIRST OPEN ROTATION POSITION *ONLY*. STAND BACK AND WAIT UNTIL THE STEAM IS VENTED BEFORE FULLY OPENING THE DOOR.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

French bread dough, frozen: Approximately 19-1/2 oz (553 gm) per loaf*

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350° to 400°F (177° to 204°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 to 25 minutes*	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners

PRODUCT PREPARATION

Place dough on sheet pans lined with parchment paper or in loaf pans of suitable size.

Slit top of loaves with a 1/8" (3mm) deep diagonal cut approximately 2" (51mm) apart.

Load proofed loaves in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (6 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

* Manufactured product variation in dough type and density may require adjustment to the cooking time shown above. Loaf size variation may increase or decrease capacities shown.

BREAD
—Fruit

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Fruit bread batter

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

300°F (150°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
50 to 60 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Loaf pans

Vegetable release spray

PRODUCT PREPARATION ➤ Prepare batter or a commercial mix according to manufacturer's instructions.

Spray pans with vegetable release spray.

Pour batter into pans to approximately one-half the pan depth.

Load pans in a preheated oven directly on the wire shelves.

	MAXIMUM CAPACITY
MODEL 6•10	6 loaves 2 shelves
MODEL 7•14	24 loaves 3 shelves
MODEL 10•10	15 loaves 5 shelves
MODEL 10•18 10•20	40 loaves 5 shelves
MODEL 12•18 12•20	48 loaves 6 shelves
MODEL 20•20	80 loaves 10 shelves

PAN SIZES ➤ Loaf pans:
4-1/4" x 8-1/2" x 3-1/8" deep — 3 lb
(108mm x 216mm x 79mm deep — 1,4 kg)

NOTES ➤ Loaf pan size variation may increase or decrease capacities shown and may require an adjustment to the cooking time.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

BREAD DOUGH:

Sour Dough, Whole Wheat, Multi Grain, etc.

2 lb (c 1 kg) per loaf, fresh or frozen

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

340° to 375°F (171° to 191°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 to 25 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Loaf pans or sheet pans for country loaf

Vegetable release spray

OPTIONAL FOR COUNTRY LOAF:
Pan liners or corn meal

PRODUCT PREPARATION

Spray loaf pans with vegetable release spray or use pan liners or cornmeal if using sheet pans.

Place loaves in pans and proof dough as required.

Load proofed dough pans in a preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 loaves 2 shelves
MODEL 7•14	18 loaves 3 shelves
MODEL 10•10	9 loaves 3 shelves
MODEL 10•18 10•20	18 loaves 3 shelves
MODEL 12•18 12•20	24 loaves 4 shelves
MODEL 20•20	36 loaves 6 shelves

PAN SIZES

Loaf pans:
10-3/8" x 5-1/2" x 4" deep — 6 lb capacity
(264mm x 140mm x 102mm — 2,7 kg)

NOTES

Dough type and loaf pan size variation may increase or decrease capacities shown and may require an adjustment to the cooking time.

BROWNIES

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Brownie batter

FAN SPEED

Reduced Speed

OVEN MODE

Convection

COOKING TEMPERATURE

325° to 340°F (163° to 171°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 to 40 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel or aluminum sheet pans

Vegetable release spray

PRODUCT PREPARATION ➤ Prepare brownie batter or a commercial mix according to manufacturer's instructions.

Spray pans with vegetable release spray.

Spread batter evenly in pans and load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	20 full-size sheet pans (20 GN 2/1)

PAN SIZES ➤ Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Cookie dough, fresh or frozen

FAN SPEED

Full Speed

OVEN MODE

Convection

COOKING TEMPERATURE

300° to 340°F (150° to 171°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
12 to 15 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum steel pans

Baking pan liners or vegetable release spray

PRODUCT PREPARATION

Place cookie dough portions on lined or sprayed pans.

Load pans in preheated oven.

NOTE: Various cookie varieties can be baked at the same time.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	20 full-size sheet pans (20 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

CROISSANTS

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Croissant dough: 2.4 oz. (68 gm) each

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
15 to 20 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners* or vegetable release spray

Egg wash (optional)

PRODUCT PREPARATION

Place croissant dough on lined or sprayed pans and proof as required.

Brush dough with egg wash if desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

DANISH PASTRY

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Danish pastry dough

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
15 minutes	n/a
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners or vegetable spray

Fruit filling or egg wash (optional)

PRODUCT PREPARATION

Prepare dough according to the instructions.

Portion dough on lined or sprayed pans and proof as required.

Add optional fruit filling in the center of each Danish.

Brush each Danish with egg wash if desired and load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	4 full-size sheet pans (4 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

If desired, frost Danish when cool.

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

MUFFINS

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Muffin batter

FAN SPEED

Reduced Speed

OVEN MODE

Convection

COOKING TEMPERATURE

325°F (163°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
3-1/2 oz (100 gm) muffins 15 minutes	n/a
4-1/2 oz (130 gm) muffins 20-25 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Muffin cupcake pans

Paper muffin cups
or
Vegetable release spray

PRODUCT PREPARATION

Prepare batter or a commercial mix according to manufacturer's instructions.

Spray muffin cups with vegetable release spray or line with paper cups.

Pour batter in pans, one-half to three-fourth the cup depth.

Load pans in preheated oven directly on wire shelves.

	MAXIMUM CAPACITY
MODEL 6•10	36 muffins 3 shelves
MODEL 7•14	72 muffins 3 shelves
MODEL 10•10	60 muffins 5 shelves
MODEL 10•18 10•20	120 muffins 5 shelves
MODEL 12•18 12•20	144 muffins 6 shelves
MODEL 20•20	240 muffins 10 shelves

PAN SIZES

*Muffin pan: 10-3/4" x 14-1/8" x 1-3/8"
2-3/4" diameter cup — 12 cups per PAN
(273mm x 359mm x 35mm)
(70mm diameter cup)

NOTES

*Capacity varies due to variety and size of muffin pans. Cup size variations may require adjustment to cooking time.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Fruit pie, frozen: 9" (c. 229mm) diameter

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

340° to 350°F (171° to 177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FROM FROZEN 40 to 45 minutes	
THAWED* 15 to 20 minutes	n/a
FRESH* 30 to 40 minutes	
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Egg wash (optional)

PRODUCT PREPARATION

If the pies are not vented, cut 6 small slits in the top of each pie.

Brush the top of each pie with egg wash if desired.

Place pies on sheet pans to protect from boil-over.

Load pans into preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 pies 3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	12 pies 3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	10 pies 5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	20 pies 5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	24 pies 6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	40 pies 10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

* An adjustment must be made to the cooking time if pies are fresh or fully thawed.

PROOFING
— Bread Dough

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤

Bread dough: various

FAN SPEED

Reduced Speed

OVEN MODE

Low Temperature Steam

COOKING TEMPERATURE

90° to 100°F (32° to 38°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
15 to 45 minutes DEPENDING ON SIZE	n/a
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤

Sheet pans with baking pan liners (parchment paper)
or
Loaf pans

PRODUCT PREPARATION ➤

Place dough on sheet pans lined with parchment paper or in loaf pans of suitable size.

Load pans in preheated oven.

MAXIMUM CAPACITY ➤

MODEL 6•10	SEE INDIVIDUAL PRODUCT INSTRUCTIONS FOR RECOMMENDED PAN SIZES AND PRODUCT CAPACITIES
MODEL 7•14	
MODEL 10•10	
MODEL 10•18 10•20	
MODEL 12•18 12•20	
MODEL 20•20	

PAN SIZES ➤

NOTES ➤

* Proofing time varies with the type or size of product. If using a manufactured product, follow manufacturer's instructions for proofing time.

PUFF PASTRY

COMBITHERM OVEN PROCEDURE

FOLLOW *OVEN PREPARATION AND PREHEAT* INSTRUCTIONS AT THE BEGINNING OF THIS SECTION

PRODUCT

Puff pastry dough

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
3 oz (85 gm) FILLED PASTRY 15 minutes	n/a
3 oz (85 gm) UNFILLED 10 to 12 minutes	

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners

Fruit or savory filling (optional)

Egg wash (optional)

PRODUCT PREPARATION

Prepare dough according to manufacturer's instructions.

Place dough on lined pans.

Add optional fruit or savory filling.

Brush dough with egg wash if desired and place pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans. (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

ROLLS
— Cinnamon

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Cinnamon roll dough:
5 oz (142 gm) per roll

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners

PRODUCT PREPARATION

Place dough on lined pans and proof as required.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

Frost rolls when cool if desired.

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Dinner roll dough:
3 to 4 oz (85 to 113 gm) per roll

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
10 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners

Egg wash (optional)

PRODUCT PREPARATION

Place rolls on lined pans and proof as required.

Brush rolls with egg wash if desired.

Load proofed rolls in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

Cooking time may vary due to type of dough.

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

ROLLS
— Par-Baked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Par-baked rolls:
3 to 4 oz (85 to 113 gm) per roll

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
10 to 15 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Baking pan liners

Egg wash (optional)

PRODUCT PREPARATION

Place par-baked rolls on lined pans.

Brush rolls with egg wash if desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN/2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

When using baking pan liners, fold each of the four corners in toward the bottom of the sheet pan to prevent the force of the fan from blowing the liner over the product.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Sheet Cake

FAN SPEED

Reduced Speed

OVEN MODE

Convection

COOKING TEMPERATURE

325°F (163°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤

Sheet pans or cake molds

Pan liners

PRODUCT PREPARATION ➤

Prepare batter.

Pour batter into pans.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	5 half-size sheet pans (5 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES ➤

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Corn Dogs
Chicken Wings
Egg Rolls
Spring Rolls
Mini Pizza
Tater Tots

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

Corn Dogs:	350°F	(177°C)
Mini Pizza:	350°F	(177°C)
Tater Tots:	375°F	(191°C)
Egg Rolls:	375°F	(191°C)
Spring Rolls:	375°F	(191°C)
Chicken Wings:	400°F	(204°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FROM FROZEN	
CHICKEN WINGS MINI PIZZA TATER TOTS 10 minutes	165°F (74°C)
EGG ROLLS SPRING ROLLS 15 minutes	165°F (74°C)
CORN DOGS 20 minutes	165°F (74°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START

START STOP

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

MATERIALS

Stainless steel or aluminum sheet pans
Vegetable release spray

PRODUCT PREPARATION

Spray pans with vegetable release spray.
Evenly arrange frozen product in pans.
Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (20 GN 1/1) or (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans (24 GN 1/1) or (12 GN 2/1)
MODEL 20•20	20 full-size sheet pans (40 GN 1/1) or (20 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

Additional wire shelves are required in some models for maximum capacity of sheet pans shown above.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤

Precooked breaded chicken pieces

FAN SPEED

Full Speed

OVEN MODE

Convection

COOKING TEMPERATURE

325° to 350°F (163° to 177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
IF FROZEN 30 to 35 minutes	165°F (74°C)
IF REFRIGERATED 20 to 25 minutes	165°F (74°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
145° to 150°F (63° to 66°C)	10° to 15°F (6° to 8°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤

Stainless steel or aluminum sheet pans

Wire pan grids or icing racks (OPTIONAL)

Vegetable release spray

PRODUCT PREPARATION ➤

Spray pans with vegetable release spray. Evenly arrange chicken on pans and load pans in preheated oven.

AS AN OPTION

Insert wire pan grids into pans to elevate the product from the pan surface. Spray the pan grids with vegetable release spray. Evenly arrange product on the top of the pan grids.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (10 GN 1/1) or (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (12 GN 1/1) or (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (20 GN 1/1) or (10 GN 2/1)

PAN SIZES ➤

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤

For best results, cook only from the frozen state and load every other shelf rack position.

CONVENIENCE PRODUCTS — Frozen Entrées

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Frozen Convenience Entrées:
5 to 6 oz (142 to 170 gm) pans

Entrée Type A: Chicken Primavera, Escalloped Apples, Macaroni & Beef, Macaroni & Cheese, Ratatouille

Entrée Type B: Cabbage Rolls, Meat Lasagna, Soup, Stuffed Peppers

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

275°F (135°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
Entrée Type A* 35 to 40 minutes	140°F (60°C)
Entrée Type B* 55 to 60 minutes	140°F (60°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

NO MATERIALS REQUIRED.
For greater pan stability and ease of handling it is recommended the entrée pans be placed on sheet pans for the cooking function. Sheet pan usage may reduce maximum capacities shown below.

PRODUCT PREPARATION

Selected entrées should remain frozen until ready to reheat. Do not remove entrée from the original container before cooking. The original pan cover should remain on the entrée during the cooking process. Load frozen entrées into a preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	12 entrée pans
MODEL 7•14	28 entrée pans
MODEL 10•10	20 entrée pans
MODEL 10•18 10•20	40 entrée pans
MODEL 12•18 12•20	48 entrée pans
MODEL 20•20	80 entrée pans

PAN SIZES

Frozen entrée pans can be placed and cooked on sheet pans to facilitate product handling.

NOTES

If product thaws prior to cooking, adjust the timer using 25 to 30 minutes for Type A entrées and 35 to 40 minutes for Type B entrées.

BAKED HADDOCK/OTHER FISH — Fresh or Frozen

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Haddock fillets:
4 to 8 oz (114 to 227 gm) portions

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

400°F (204°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FRESH 9 minutes	150° to 160°F (66° to 71°C)
FROZEN 20 minutes	150° to 160°F (66° to 71°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
140° to 150°F (60° to 66°C)	10°F (5 to 6°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Vegetable release spray

Seasoning

PRODUCT PREPARATION

Spray pans with vegetable release spray if desired.

Place frozen or thawed haddock fillets on pans and season as desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	48 lb (22 kg) 6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	112 lb (51 kg) 7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	80 lb (36 kg) 10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	160 lb (73 kg) 10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	192 lb (87 kg) 12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	320 lb (145 kg) 20 full-size sheet pans (20 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

LOBSTER
— Whole or Tail

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Lobster, whole: 1-1/2 lb (680 gm) each

Lobster, tail: 8 to 10 oz (227 to 283 gm) each

FAN SPEED

Full Speed

OVEN MODE

LOBSTER, WHOLE: Steam
LOBSTER, TAIL: Low Temperature Steam

COOKING TEMPERATURE

Steam: 212°F (100°C)
Low Temperature Steam: 160°F (71°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
WHOLE 10 minutes	150°F (66°C)
TAIL 5 to 8 minutes	150°F (66°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
140°F (60°C)	10°F (5° to 6°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum pans

Seasoning

PRODUCT PREPARATION

If frozen, thaw lobster prior to steaming.

WHOLE LOBSTER:
Place in pans and load in preheated oven.

LOBSTER TAILS:
Extract or partially pull meat from shell. Place tails in pans and season as desired. Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

ORANGE ROUGHY — Frozen

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Orange roughy fillets:
4 to 6 oz (113 to 170 gm) each

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

300°F (150°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FROZEN 8 minutes	150°F (66°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Vegetable release spray

Seasoning

PRODUCT PREPARATION

Spray pans with vegetable release spray.

Place frozen fillets on pans and season as desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	12 lb (5 kg) 6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	28 lb (13 kg) 7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	20 lb (9 kg) 10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	40 lb (18 kg) 10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	48 lb (22 kg) 12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	80 lb (36 kg) 20 full-size sheet pans (20 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

SALMON
— Fresh

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤
Salmon steaks:
7 oz (198 gm) each

Salmon fillets:
8 oz (227 gm) each

FAN SPEED

Full Speed

OVEN MODE

Steam

or Low Temperature Steam

COOKING TEMPERATURE

Steam: 212°F (100°C)
Low Temperature Steam:
135° to 160°F (57° to 71°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
IN STEAM MODE STEAKS 11 minutes	150° to 160°F (66° to 71°C)
IN STEAM MODE FILLETS 7 minutes	150° to 160°F (66° to 71°C)
IN LOW TEMP STEAM MODE 13 minutes	135° to 160°F (57° to 71°C)

PRESS START (START STOP)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
140°F (60°C)	10°F (5° to 6°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤

Stainless steel or aluminum sheet pans

Vegetable release spray

Seasoning

PRODUCT PREPARATION ➤

Spray pans with vegetable release spray.

Place salmon steaks or fillets on pans and season as desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	21 lb (10 kg) 6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	49 lb (22 kg) 7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	35 lb (16 kg) 10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	70 lb (32 kg) 10 full-size sheet pans (20 GN 1/1)
MODEL 12•18 12•20	84 lb (38 kg) 12 full-size sheet pans (24 GN 1/1)
MODEL 20•20	140 lb (64 kg) 20 full-size sheet pans (40 GN 1/1)

PAN SIZES ➤

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤

SALMON — Cold Smoked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Salmon fillets: 2-1/2 - 4 lb (1 - 2 kg) each

FAN SPEED

Half Speed

WOOD CHIP CONTAINER

Full

OVEN MODE

Convection Mode

COOKING TEMPERATURE

86°F (30°C)

SELECT SMOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE SMOKE TIME	FINAL INTERNAL TEMPERATURE
10 to 30 minutes per smoke flavor preference	NOT TO EXCEED 77°F (25°C)
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER

Press Chef Function key.

Turn knob until Smoker icon is displayed.

Press Chef Function key.

"YES" or "NO" check box will appear in display. Use knob or up/down arrow keys to select "YES".

Press Chef Function key to confirm setting.

Press **START**.

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP KEY.

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES ➤

Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"
Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

MATERIALS ➤

- Clear Plastic Wrap
- Wire Mesh Grids
- Ice: 3 to 4 lb (1 to 2 kg)
- Paper Toweling
- Tweezers

PRODUCT PREPARATION ➤

Remove bones from fillets with a tweezers to avoid rupturing tissue.

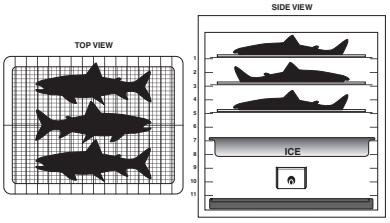
SALTING:

50% Sea Salt or Kosher Salt
50% Granulated or Brown Sugar (FOR BEST COLOR)

To remove moisture from the raw salmon, blend salt and sugar mixture thoroughly and pack firmly around each fillet. Cover salt-filled pans with clear plastic wrap and refrigerate for 24 hours. Following the 24 hour refrigeration period, remove fillets from salt/sugar mixture and rinse thoroughly under cold, running water. Pat dry with paper toweling. Place fillets side-by-side on a sheet pan and return, uncovered, to the refrigerator for a period of 1 to 6 hours for the final drying period.

OVEN MUST BE AT ROOM TEMPERATURE BEFORE BEGINNING PROCEDURE.

Soak wood chips in water according to directions (5 minutes). Fill wood chip container full and insert in chip holder located at the back of the oven.



Fill pan with ice and locate pan in shelf directly above wood chip container.

Place prepared salmon fillets on a wire grid as indicated on the diagram and insert wire grid on oven shelf beginning with the top shelf position.

Insert probe probe into the center of the middle salmon fillet located in the top shelf position or central shelf position when smoking a full load (OPTIONAL).

To maintain proper color, the internal temperature of the salmon must not exceed 77°F (25°C). For this reason, it is important to begin the smoking process with the oven at room temperature.

Close oven door and press the oven function keys to provide a smoking time period from 10 to 30 minutes depending on taste preference. When the timer cycles to the OFF position, the fillets must remain in the oven for a period of 30 minutes to 2 hours. Do not open the oven door during this period.

Following the required oven time, remove the fillets, cover with clear plastic wrap and refrigerate until fully chilled.

SHRIMP

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Shrimp:
5 lb (2 kg), 16 to 20 count

FAN SPEED

Full Speed

OVEN MODE

Steam
or Low Temperature Steam

COOKING TEMPERATURE

Steam: 212°F (100°C)
Low Temperature Steam:
155° to 160°F (68° to 71°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
STEAM MODE 8 minutes 10 minutes if frozen*	145° to 150°F (63° to 66°C)
LOW TEMP STEAM 10 to 30 minutes from frozen	145° to 150°F (63° to 66°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Full-size, perforated stainless steel pans

PRODUCT PREPARATION

* For best results when using the Steam Program mode, thaw shrimp and place in perforated pans in a single layer.

Load pans in preheated oven.

For the Low Temperature Steam Program, shrimp can be cooked thawed or frozen.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES

Full-size Perforated Pans:
20" x 12" x 2-1/2"

(GN 1/1: 530mm x 325mm x 65mm)

NOTES

For best results and to avoid over cooking, remove pans from the Combitherm for immediate placement in cold water or use the spray hose to stop the cooking process.

TROUT — Fresh

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Trout, whole or fillets:
9 to 11 oz (255 to 312 gm) each

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

300°F (150°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
8 minutes	150°F (66°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Vegetable release spray

Seasoning

PRODUCT PREPARATION

Spray pans with vegetable release spray.

Place trout on pans and season as desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	33 lb (15 kg) 6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	77 lb (35 kg) 7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	55 lb (25 kg) 10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	110 lb (50 kg) 10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	132 lb (60 kg) 12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	220 lb (100 kg) 20 full-size sheet pans (20 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

BACON
— Sliced

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Bacon, sliced

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

375°F (191°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
8 minutes	n/a
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Parchment paper (optional)

PRODUCT PREPARATION

Line pans with parchment paper if desired.

Place individual bacon slices on pans, side-by-side.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	20 full-size sheet pans (20 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

FOR OVENS EQUIPPED WITH SMOKING FUNCTION

BEEF BRISKET — Smoked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT
Beef Brisket, Fresh: 9-13 lb (4 to 6 kg)

FAN SPEED
Full Speed

WOOD CHIP CONTAINER
Full

OVEN MODE
Combination

COOKING TEMPERATURE
225°F (107°C)
2-1/2 hours

SELECT SMOKING TIME

TIMER
Press and Set **TIMER**

APPROXIMATE SMOKE TIME	FINAL INTERNAL TEMPERATURE
1 hour (light flavor) 2 hours (heavy flavor) Low fan speed during the smoke function may create a heavier smoke flavor	175°F (79°C)
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER
Press Chef Function key.
Turn knob until Smoker icon is displayed.
Press Chef Function key.
"YES" or "NO" check box will appear in display.
Use knob or up/down arrow keys to select "YES".
Press Chef Function key to confirm setting.
Press **START**.

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP KEY.

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS
Stainless steel sheet pans or full-size pans
Wire pan grids (optional)
Vegetable release spray (optional)
Seasoning

PRODUCT PREPARATION
Spray pans or wire pan grids with vegetable release spray if desired.
Place briskets in pans and season as desired.
Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES
Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"
Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES

BEEF ROUNDS
— Top or Bottom

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Beef rounds, top or bottom: 18 lb (8 kg) each

FAN SPEED

Reduced Speed

OVEN MODE

BY TIME: Combination

or

BY CORE TEMP: Delta-T

COOKING TEMPERATURE

250°F (121°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
10 minutes/lb 22 minutes/kg	RARE: 130°F (54°C)
15 minutes/lb 33 minutes/kg	MED: 140°F (60°C)
20 minutes/lb 44 minutes/kg	WELL: 160°F (71°C)
TO BE CALCULATED ON A SINGLE ROAST	

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
IN COMBINATION MODE:	
RARE 100° to 115°F (38° to 46°C)	5° to 15°F (3° to 8°C)
MEDIUM 110° to 125°F (43° to 52°C)	**HOT FOOD HOLDING** INTERNAL TEMPERATURE WILL INCREASE 20° TO 30°F (11° TO 17°C) WHEN IMMEDIATELY PLACED IN A HOT FOOD HOLDING ENVIRONMENT AT 140°F (60°C). **ADJUST CUT-OFF TEMPERATURE ACCORDINGLY.**
WELL DONE 130° to 145°F (54° to 63°C)	

FOR DELTA-T COOKING USE THE PROBE TEMPERATURE CHART ON THE *DELTA-T* PROCEDURE PAGE.

PRESS START (START STOP) **STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.**

MATERIALS ➤ Stainless steel or aluminum sheet pans
Seasoning

PRODUCT PREPARATION ➤ Each roast should be relatively uniform in size to assure even heating from item to item. Season beef rounds as desired. Place in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	1 half-size sheet pan 1 roast 18 lb (8 kg)
MODEL 7•14	2 full-size sheet pans 4 roasts 72 lb (33 kg)
MODEL 10•10	2 half-size sheet pans 2 roasts 36 lb (16 kg)
MODEL 10•18 10•20	2 full-size sheet pans 4 roasts 72 lb (33 kg)
MODEL 12•18 12•20	3 full-size sheet pans 6 roasts 108 lb (49 kg)
MODEL 20•20	4 full-size sheet pans 8 roasts 144 lb (65 kg)

PAN SIZE ➤ Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"
Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤ FOR BEST RESULTS: Carefully monitor internal temperature after roasts reach an internal temperature of 110°F (43°C) since temperature will increase rapidly. Cooking this cut of meat to an internal temperature over 140°F (60°C) is not recommended.

A more tender product with higher moisture content and less shrinkage will be achieved if this product is cooked overnight in an Alto-Shaam low temperature cook and hold oven.

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Beef Short Ribs:
2 to 3 lb (1 to 1,3 kg)

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

275°F (135°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
45 minutes OR UNTIL TENDER	190°F (88°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans or full-size pans

Vegetable release spray (optional)

Seasoning

PRODUCT PREPARATION

Spray pans with vegetable release spray if desired.

Place short ribs side-by-side in pans and season as desired.

Load pans in preheated oven.

ALTERNATIVE:
Brown ribs in roasting pan. Pour boiling demi-glaze over ribs. Cover pans and load in preheated oven.

NOTE: Diced vegetables such as carrots, onion and celery will enhance the flavor of the meat.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans 24 full-size pans (24 GN 1/1)
MODEL 20•20	20 full-size sheet pans 40 full-size pans (40 GN 1/1)

PAN SIZES

Half-Size Sheet Pans: 18" x 13" x 1"
Full-Size Sheet Pans: 18" x 26" x 1"
Full-Size Pans: 20" x 12" x 2-1/2"

GN 1/1: 530 x 325 x 20mm to 65mm
GN 2/1: 530 x 650 x 20mm

NOTES

A more tender product with higher moisture content and less shrinkage will be achieved if this product is cooked overnight in an Alto-Shaam low temperature cooking and holding oven.

BEEF
— Short Ribs, Smoked

FOR OVENS EQUIPPED WITH SMOKING FUNCTION

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT
Beef Ribs, 2-3 lb (1 to 1,3 kg)

FAN SPEED
Full Speed

WOOD CHIP CONTAINER
Full

OVEN MODE
Combination

COOKING TEMPERATURE
275°F (135°C)
50 minutes

SELECT SMOKING TIME

TIMER
Press and Set **TIMER**

APPROXIMATE SMOKE TIME	FINAL INTERNAL TEMPERATURE
30-50 minutes	190°F (88°C)
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER
Press Chef Function key.
Turn knob until Smoker icon is displayed.
Press Chef Function key.
"YES" or "NO" check box will appear in display.
Use knob or up/down arrow keys to select "YES".
Press Chef Function key to confirm setting.
Press **START**.

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP KEY.

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS
Stainless steel sheet pans or full-size pans
Vegetable release spray (optional)
Seasoning

PRODUCT PREPARATION
Spray pans with vegetable release spray if desired.
Place short ribs side-by-side in pans and season as desired.
Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES
Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"
Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES

CHICKEN, OVEN FRIED — Pieces

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Chicken pieces, fresh breaded:

Fryer, 8 piece cut

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

450°F (232°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
18 minutes	185°F (85°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Preferred oven breading

Vegetable release spray

Sheet pans

PRODUCT PREPARATION

Bread chicken according to manufacturers instructions.

Spray pans with vegetable release spray.

Place chicken on sheet pans SKIN SIDE DOWN.

	MAXIMUM CAPACITY
MODEL 6•10	72 pieces, 24 pieces per pan 3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	192 pieces, 48 pieces per pan 4 full-size sheet pans (4 GN 2/1)
MODEL 10•10	120 pieces, 24 pieces per pan 5 half-size sheet pans (5 GN 1/1)
MODEL 10•18	240 pieces, 48 pieces per pan 5 full-size sheet pans (5 GN 2/1)
MODEL 12•20	288 pieces, 48 pieces per pan 6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	480 pieces, 48 pieces per pan 10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

For best results, use every other pan shelf position only.

When checking internal product temperature, take temperature reading in the densest part of the chicken thigh

CHICKEN
— Pieces and Halves

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Chicken pieces:

Fryer, 8 piece cut

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
THAWED PIECES 15 to 17 minutes)	185°F (85°C)
FROZEN PIECES 30 to 35 minutes	185°F (85°C)
THAWED HALVES 20 to 25 minutes	185°F (85°C)
FROZEN HALVES 40 to 45 minutes	185°F (85°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Vegetable release spray

Seasoning

PRODUCT PREPARATION

Season, bread, or marinate chicken as desired.

Spray pans with vegetable release spray or use non-stick coated sheet pans.

Arrange chicken meat side up. Chicken pieces or halves should not touch.

Load pans in preheated oven. For best results, use every other pan shelf position.

	MAXIMUM CAPACITY
MODEL 6•10	72 pieces, 24 pieces per pan 3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	192 pieces, 48 pieces per pan 4 full-size sheet pans (4 GN 2/1)
MODEL 10•10	120 pieces, 24 pieces per pan 5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	240 pieces, 48 pieces per pan 5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	288 pieces, 48 pieces per pan 6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	480 pieces, 48 pieces per pan 10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

For best results, use every other pan shelf position only.

When checking internal product temperature, take temperature reading in the densest part of the chicken thigh.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Chicken, whole:
2-1/4 to 2-3/4 lb (1 to 1,2 kg) each

MATERIALS

Seasoning

Vegetable release spray

Stainless Steel or aluminum sheet pans with wire pan grids
or
Alto-Shaam Chicken Roasting Racks with grease tray

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
IF THAWED 30 to 35 minutes	185°F (85°C)
IF FROZEN 55 to 60 minutes	185°F (85°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
175°F (79°C)	10°F (5° to 6°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

PRODUCT PREPARATION

Place chicken on sprayed grid-lined sheet pans or on roasting racks.

If desired, fold the wings and tuck under back of bird—cross and secure legs.

Season as desired.

Load chicken in preheated oven.

NOTE: When using roasting racks, insert the grease tray before preheating or use rack with an attached grease tray. When using sheet pans, do not overload each pan (chickens should not touch).

	MAXIMUM CAPACITY
MODEL 6•10	2 racks w/tray, 16 chickens 3 half-size sheet pans, 12 chickens (3 GN 1/1)
MODEL 7•14	4 racks w/tray, 32 chickens 6 full-size sheet pans (6 GN 2/1)
MODEL 10•10	3 racks w/tray, 24 chickens 5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	6 racks w/tray, 48 chickens 5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	8 racks w/tray, 64 chickens 6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	14 racks w/tray, 112 chickens 10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES

FOR BEST RESULTS: Thaw prior to cooking. When checking internal product temperature, take temperature reading in the densest part of the chicken thigh. The use of roasting racks with grease tray will result in more even color and better fat drainage.

CHICKEN
— Whole, Smoked

FOR OVENS EQUIPPED WITH SMOKING FUNCTION

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Chicken, Whole 2-1/4 to 2-3/4 lb (1 to 1,2 kg) each

FAN SPEED

Full Speed

WOOD CHIP CONTAINER

Full

OVEN MODE

Combination

212° - 482° F
100 - 250° C

*NOTE: FOR BEST RESULTS, SMOKE THE CHICKEN BEFORE COOKING IN COMBINATION MODE

COOKING TEMPERATURE

350°F (177°C)
25 minutes

SELECT SMOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE SMOKE TIME	FINAL INTERNAL TEMPERATURE
COMBINATION MODE 30 minutes	175°F (79°C)
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER

Press Chef Function key.

Turn knob until Smoker icon is displayed.

Press Chef Function key.

"YES" or "NO" check box will appear in display. Use knob or up/down arrow keys to select "YES".

Yes

Press Chef Function key to confirm setting.

Press **START**. START STOP

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS ➤

Seasoning

Vegetable release spray

Stainless steel or aluminum sheet pans with wire pan grids or Alto-Shaam chicken roasting racks with grease tray

PRODUCT PREPARATION ➤

Place chicken on sprayed, grid-lined sheet pans or on roasting racks. If desired, fold the wings and tuck under the back of the bird. Cross and secure legs.

Season as desired.

Load chicken in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 full-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES ➤

Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"

Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES ➤

When using roasting racks, insert the grease tray before preheating or use rack with an attached grease tray.
When using sheet pans, do not overload each pan. Chickens should not touch.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

➤ Duck pieces:
Raw and precooked

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

375° to 390°F (191° to 199°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FROM RAW 20 to 25 minutes	180°F (185°C) (82° to 85°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT REHEATING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
FOR REHEATING 15 minutes	165°F (74°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

➤ Vegetable release spray

Seasoning

FROM RAW: Stainless steel or aluminum full-size pans

FOR REHEATING: Stainless steel or aluminum sheet pans

PRODUCT PREPARATION

The cook/reheat method consists of precooking the duck in a Combitherm oven, or as an alternative, in an Alto-Shaam low temperature cook and hold oven to retain moisture. In order to provide the crispness required, cooked pieces are chilled and reheated as required for immediate service.

➤ 1. FROM RAW: Arrange duck pieces on pans.
or
Prepare duck according to cooking procedures found in the Alto-Shaam *Low Temperature Cooking and Holding Guidelines*.

➤ 2. Rapidly chill cooked product, preferably using cook/chill processing methods.

➤ 3. FOR REHEATING: Spray sheet pans with vegetable release spray. Placed precooked duck pieces side-by-side in pans. Load pans in preheated Combitherm oven.

➤ MODEL	➤ MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (6 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES ➤

Half-size sheet pans: 18" x 13" x 1"
Full-size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤ **CAPACITIES SHOWN ARE FOR REHEATING PRECOOKED PIECES.**

Cooking from raw in a Combitherm Oven or reheating after cooking from raw in a low temperature cook and hold oven will require deeper pans in order to accommodate the quantity of rendered fat. Deeper pans will prevent grease from going directly down the oven drain and provide safer handling.

DUCK
—Whole

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Duck, whole:
4 lb (2 kg) each

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
60 to 90 minutes	190° to 200°F (88° to 93°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START/STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
180° to 190°F (82° to 88°C)	10°F (5° to 6°C)

PRESS START (START/STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START/STOP) KEY.

MATERIALS ➤
Stainless steel or aluminum full-size pans
Wire pan grids (optional)
Vegetable release spray (optional)
Seasoning

PRODUCT PREPARATION ➤
Insert pan grids in pans and spray with vegetable release spray if desired.

Arrange ducks on pans or pan grids and season as desired.

Fold wings and tuck under back of bird.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 ducks per pan: 6 ducks 2 full-size pans (2 GN 1/1)
MODEL 7•14	9 ducks per pan: 18 ducks 3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	3 ducks per pan: 9 ducks 3 full-size pans (3 GN 1/1)
MODEL 10•18 10•20	9 ducks per pan: 54 ducks 6 full-size sheet pans (6 GN 2/1)
MODEL 12•18 12•20	9 ducks per pan: 72 ducks 8 full-size sheet pans (8 GN 2/1)
MODEL 20•20	9 ducks per pan: 90 ducks 10 full-size sheet pans (10 GN 2/1)

PAN SIZES ➤
Full-Size Pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Gastronorm 1/1: 530 x 325 x 20mm
Gastronorm 2/1: 530 x 650 x 20mm

NOTES ➤

FOLLOW DIRECTIONS ON PREVIOUS PAGE TO REHEAT.

THE USE OF SHEET PANS requires a drip pan at the bottom of the oven to accommodate the quantity of rendered fat. A drip pan will prevent grease from going directly down the oven drain.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Ham, cured:
Bone-in or boneless — 8 to 12 lb (4 to 5 kg)

FAN SPEED

Half Speed

OVEN MODE

Combination

or

BY CORE TEMP: Delta-T

COOKING TEMPERATURE

275°F (135°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
13 minutes per lb (20 minutes per kg) TO BE CALCULATED ON A SINGLE HAM	165°F (74°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
COMBINATION 150° to 160°F (66° to 71°C)	5° to 15°F (3° to 8°C)

FOR DELTA-T COOKING USE THE PROBE TEMPERATURE CHART ON THE DELTA-T PROCEDURE PAGE.

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel or aluminum full-size pans or sheet pans

PRODUCT PREPARATION ➤ Each ham should be relatively uniform in size to assure even heating from item to item.

Place hams in pans and load in a preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	4 hams 2 half-size sheet pans 2 full-size pans (GN 1/1)
MODEL 7•14	8 hams 2 full-size sheet pans 4 full-size pans (GN 1/1)
MODEL 10•10	6 hams 3 half-size sheet pans 3 full-size pans (GN 1/1)
MODEL 10•18 10•20	12 hams 3 full-size sheet pans 6 full-size pans (GN 1/1)
MODEL 12•18 12•20	16 hams 4 full-size sheet pans 8 full-size pans (GN 1/1)
MODEL 20•20	28 hams 7 full-size sheet pans 14 full-size pans (GN 1/1)

PAN SIZES ➤ Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"
Full-Size Pans: 12" x 20" x 2-1/2"
(GN 1/1: 530mm x 325mm x 65mm)

NOTES ➤ When using CORE-TEMP or CORE-TEMP Delta-T feature, insert the probe so that the tip of the probe is centered in one of the hams without touching any bone.

HAMBURGER PATTIES
— Fresh or Frozen

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Hamburger patties, pre-formed:
4 oz (113 gm) each

FAN SPEED

Full Speed

OVEN MODE

212°-482°F
100°-250°C

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
IF THAWED 5 minutes	165°F (74°C)
IF FROZEN 0 minutes	165°F (74°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START — START STOP

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START — START STOP

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

MATERIALS

Stainless steel or aluminum sheet pans

Vegetable release spray

Seasoning

PRODUCT PREPARATION

Spray pans with vegetable release spray.

Place patties side-by-side on pans and season as desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans 6 full-size pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans 10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans 20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	12 full-size sheet pans 24 full-size pans (24 GN 1/1)
MODEL 20•20	20 full-size sheet pans 40 full-size pans (40 GN 1/1)

PAN SIZES

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"
Full-Size Pans: 12" x 20" x 2-1/2"
(GN 1/1: 530mm x 325mm x 65mm)

NOTES

The use of non-stick coated pans is recommended.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT
Hot Dogs

MATERIALS
Stainless steel full-size perforated pans

FAN SPEED
Full Speed

PRODUCT PREPARATION
Place hot dogs on pans in a single layer.

Load pans in preheated oven.

OVEN MODE
Steam
or
Low Temperature Steam

COOKING TEMPERATURE
Steam: 212°F (100°C)
Low Temperature Steam:
160° to 180°F (71° to 82°C)

SELECT COOKING TIME

TIMER
Press and Set **TIMER**

PRESS START / START STOP

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
IN STEAM 10 minutes	150°F (66°C)
LOW TEMP STEAM 13 minutes	150°F (66°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP
Press and Set **CORE TEMP**

PRESS START / START STOP

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	7 full-size pans (7 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN/1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN/1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN/1/1)
MODEL 20•20	40 full-size pans (40 GN/1/1)

PAN SIZES
Full-size perforated pans:
20" x 12" x 2-1/2"

(GN 1/1: 530mm x 325mm x 65mm)

NOTES
Avoid over-cooking to prevent split casing. Unless using the Low Temperature Steam program, remove from oven immediately to prevent casings from splitting.

GRILLING
—Combitherm Grilling Methods

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤
Chicken Breasts ....4-8 oz. (113-227 gm.)
Fish Fillets.....4-6 oz. (113-170 gm.)
Pork Chops .....6-8 oz. (170-227 gm.)
Steaks.....4-8 oz. (113-227 gm.)

FAN SPEED

Full Speed

OVEN MODE

212°-482°F
100°-250°C

Combination

COOKING TEMPERATURE

460°F (238°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
Chicken Breasts: 6-7 minutes Fish Fillets: 4-6 minutes Pork Chops: 6-7 minutes	
Steaks	Cook 5°F (3°C) below the final internal temperatures as shown below: 130°F (54°C) RARE 135°F (57°C) MED RARE 140°F (60°C) MEDIUM 150°F (66°C) MED WELL 160°F (71°C) WELL
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤
Alto-Shaam Combitherm
Grill Grate Shelf - Item SH-26731

PRODUCT PREPARATION ➤
Season individual items as desired.

Place on grill grate.

	MAXIMUM CAPACITY
MODEL 6•10	6 Grill Grate Shelves
MODEL 7•14	14 Grill Grate Shelves
MODEL 10•10	10 Grill Grate Shelves
MODEL 10•18 10•20	20 Grill Grate Shelves
MODEL 12•18 12•20	24 Grill Grate Shelves
MODEL 20•20	40 Grill Grate Shelves

PAN SIZES ➤ n/a

NOTES ➤

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Leg of Lamb: 4 to 11 lb (1,8 to 5 kg)

MEAT SPECIFICATIONS WHICH CAN BE USED:
Lower shank off
Lower shank off, boneless
Oven prepared, partially boneless
Oven prepared, boneless and tied

FAN SPEED

Half Speed

OVEN MODE

Combination

or

Delta-T Core Temp

COOKING TEMPERATURE

250°F (121°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
10 minutes/lb 22 minutes/kg	RARE: 130°F (54°C)
15 minutes/lb 33 minutes/kg	MED: 140°F (60°C)
20 minutes/lb 44 minutes/lb	WELL: 160°F (71°C)
TO BE CALCULATED ON A SINGLE LEG	

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
COMBINATION MODE	5° to 15°F (3° to 8°C)
RARE: 115°F (46°C)	**HOT FOOD HOLDING** INTERNAL TEMPERATURE WILL INCREASE 20° TO 30°F (11° TO 17°C) WHEN IMMEDIATELY PLACED IN A HOT FOOD HOLDING ENVIRONMENT AT 140°F (60°C). **ADJUST CUT-OFF TEMPERATURE ACCORDINGLY.**
MED: 125°F (52°C)	
WELL: 145°F (63°C)	

FOR DELTA-T COOKING USE THE PROBE TEMPERATURE CHART ON THE DELTA-T PROCEDURE PAGE.

PRESS START (START STOP)

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel or aluminum roasting pan

Seasoning

PRODUCT PREPARATION ➤ Each leg of lamb should be relatively uniform in size to assure even heating from item to item.

Season as desired.

Load in preheated oven.

As an alternative, cook in roasting pans with herbs and spices.

	MAXIMUM CAPACITY
MODEL 6•10	2 to 3 half-size sheet pans (2 to 3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	3 to 4 half-size sheet pans (3 to 4 GN 1/1)
MODEL 10•18 10•20	3 to 4 full-size sheet pans (3 to 4 GN 2/1)
MODEL 12•18 12•20	4 to 5 full-size sheet pans (4 to 5 GN 2/1)
MODEL 20•20	5 to 6 full-size sheet pans (5 to 6 GN 2/1)

PAN SIZES ➤ Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 650mm x 530mm x 20mm

NOTES ➤ FOR BEST RESULTS: Carefully monitor internal temperature after the lamb reaches an internal temperature of 115°F (46°C) since temperature will increase rapidly.

A more tender product with higher moisture content and less shrinkage will be achieved if this product is cooked in an Alto-Shaam low temperature cook and hold oven.

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

LAMB
— Rack

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Lamb rack:
3 to 5 lb (1,3 to 2,3 kg) each

FAN SPEED

Full Speed

OVEN MODE

Combination

or

Delta-T Core Temperature

COOKING TEMPERATURE

250°F (121°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
10 minutes/lb 22 minutes/kg	RARE: 130°F (54°C)
15 minutes/lb 33 minutes/kg	MED: 140°F (60°C)
TO BE CALCULATED ON A SINGLE RACK	
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
COMBINATION MODE	5° to 15°F (3° to 8°C)
RARE: 115°F (46°C)	**HOT FOOD HOLDING** INTERNAL TEMPERATURE WILL INCREASE 20° TO 30°F (11° TO 17°C) WHEN IMMEDIATELY PLACED IN A HOT FOOD HOLDING ENVIRONMENT AT 140°F (60°C). **ADJUST CUT-OFF TEMPERATURE ACCORDINGLY.**
MED: 125°F (52°C)	
WELL: 145°F (63°C)	

FOR DELTA-T COOKING USE THE PROBE TEMPERATURE CHART ON THE DELTA-T PROCEDURE PAGE.

PRESS START (START STOP)

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤

Stainless steel sheet pans

Wire pan grids (optional)

Seasoning

PRODUCT PREPARATION ➤

Season as desired.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (12 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES ➤

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 650mm x 530mm x 20mm

NOTES ➤

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Meat loaf mixture:
3 lb (1,4 kg) per loaf

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

300° to 350°F (150° to 177°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
60 minutes	165° to 170°F (74° to 77°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
150° to 160°F (66° to 71°C)	10° to 20°F (6° to 11°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Loaf pans

Vegetable release spray (optional)

PRODUCT PREPARATION

Spray pans with vegetable release spray if desired.

Place mixture in loaf pans.

Load pans in preheated oven by placing loaf pans directly on the wire shelves.

	MAXIMUM CAPACITY
MODEL 6•10	9 loaf pans 3 shelves
MODEL 7•14	24 loaf pans 3 shelves
MODEL 10•10	15 loaf pans 5 shelves
MODEL 10•18 10•20	40 loaf pans 5 shelves
MODEL 12•18 12•20	48 loaf pans 6 shelves
MODEL 20•20	80 loaf pans 10 shelves

PAN SIZES

Loaf pans, 3 lb (1,4 kg) capacity
4-1/4" x 8-1/8" x 3-1/8"
(108mm x 206mm x 79mm)

NOTES

PORK
— Back Ribs

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Pork back ribs:
1-3/4 down

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

FOR COOKING: 250°F (121°C)
FOR REHEATING: 375°F (191°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FROM RAW 45 to 60 minutes	175° to 180°F (79° to 82°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START — START STOP

OR

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
FOR REHEATING 8 minutes	165°F (74°C)

PRESS START — START STOP

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

MATERIALS

Stainless steel or aluminum sheet pans or full-size pans

Seasoning

Barbeque Sauce (optional)

PRODUCT PREPARATION

Place ribs side-by-side on pans and season as desired.

Load pans in preheated oven.

NOTE: When cooking for immediate service or hot food holding, brush with heated barbeque sauce ***after*** ribs are removed from oven to prevent sauce from burning. As an alternative, ribs can be cooked in advance, rapidly chilled and removed from refrigeration for reheating and service as required. Barbecue sauce can be used for the reheating process.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	4 full-size sheet pans (4 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530mm x 325mm x 20mm
Gastronorm 2/1: 650mm x 530mm x 20mm

NOTES

FOR OVENS EQUIPPED WITH SMOKING FUNCTION

PORK
— Back Ribs, Smoked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Pork Back Ribs: 1-3/4 down

FAN SPEED

Full Speed

WOOD CHIP CONTAINER

Full

OVEN MODE

Combination

then

Steam

COOKING TEMPERATURE

Combination mode: 250°F (121°C)

Steam mode: 160°F (71°C)

SELECT SMOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE SMOKE TIME	FINAL INTERNAL TEMPERATURE
COMBINATION MODE 60 minutes *then* **STEAM MODE** 60 minutes	175° to 180°F (79° to 92°C)
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER

Press Chef Function key.

Turn knob until Smoker icon is displayed.

Press Chef Function key.

"YES" or "NO" check box will appear in display. Use knob or up/down arrow keys to select "YES".

Press Chef Function key to confirm setting.

Press **START**.

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP KEY.

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS

Stainless steel or aluminum sheet pans or full-size pans

Seasoning

Barbeque Sauce (optional)

PRODUCT PREPARATION

Place ribs side-by-side on pans and season as desired.

Load pans in preheated oven.

NOTE: When cooking for immediate service or hot food holding, brush with heated barbeque sauce ***after*** ribs are removed from oven to prevent sauce from burning. As an alternative, ribs can be cooked in advance, rapidly chilled and removed from refrigeration for reheating and service as required. Barbecue sauce can be used for the reheating process.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES

Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"

Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES

When using the smoking function, products such as ribs may require heavier smoke penetration to reach full smoke flavor and should remain in the oven after cooking has been completed Set the oven in the Low Temperature Steam Mode at 140° to 160°F (60° to 71°C) and allow the product to remain in the oven for a period of one hour.
DO NOT **open the oven door during the smoking process.**

PORK RIBS
— Two-Step Method

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Pork ribs:
1-3/4 down

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

375°F (191°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
8 minutes REHEATING	165°F (74°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START — START STOP

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START — START STOP

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

Wire pan grids (icing racks)

Vegetable release spray

Barbecue sauce (optional)

PRODUCT PREPARATION

FIRST STEP:

- The 2-step method of cooking consists of precooking the ribs in an Alto-Shaam cook and hold oven to retain moisture.
- Prepare ribs according to cooking procedures found in the Alto-Shaam Low Temperature Cooking and Holding Guidelines.
- After cooking in the Alto-Shaam cook and hold oven, properly chill and refrigerate ribs at 38° to 40°F (c. 3° to 4°C).

SECOND STEP:

- Spray pan grids with vegetable release spray.
- Shingle ribs or place side-by-side on pan grids.
- Brush with barbecue sauce (optional).
- Load pans in preheated Combitherm oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	4 full-size sheet pans (4 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

Gastronorm 1/1: 530mm x 325mm x 20mm
Gastronorm 2/1: 650mm x 530mm x 20mm

NOTES

PORK
— Loin Roast

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Pork loin: 6 to 8 lb (2,7 to 3,6 kg) each
— Center Cut
— Boneless
— Boned and Tied

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

275° to 300°F (135° to 149°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 minutes per lb (44 minutes per kg)	
CENTER CUT	165° to 170°F (74° to 77°C)
BONED & TIED	170°F (77°C)
TO BE CALCULATED ON A SINGLE ROAST	
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
COMBINATION MODE	
CENTER 155°F (68°C)	5° to 10°F (3° to 5°C)
ROLLED 160°F (71°C)	

FOR DELTA-T COOKING USE THE PROBE TEMPERATURE CHART ON THE DELTA-T PROCEDURE PAGE.

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤

Stainless steel or aluminum sheet pans

Wire pan grids

Seasoning

PRODUCT PREPARATION ➤

Each roast should be relatively uniform in size to assure even heating from item to item.

Season roasts as desired and place in pans.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 half-size sheet pans (3 GN 1/1)
MODEL 7•14	3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	5 half-size sheet pans (5 GN 1/1)
MODEL 10•18 10•20	5 full-size sheet pans (5 GN 2/1)
MODEL 12•18 12•20	6 full-size sheet pans (6 GN 2/1)
MODEL 20•20	10 full-size sheet pans (10 GN 2/1)

PAN SIZES ➤

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 650mm x 530mm x 20mm

NOTES ➤

A more tender product with higher moisture content and less shrinkage will be achieved if this product is cooked overnight in an Alto-Shaam low temperature cook and hold oven.

PORK SHOULDER
— Smoked

FOR OVENS EQUIPPED WITH SMOKING FUNCTION

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Pork Shoulder, Boston Butt, Bone-in or Boneless, 8 to 10 lb (4 to 5 kg)

FAN SPEED

Full Speed

WOOD CHIP CONTAINER

Full

OVEN MODE

212°-482°F
100°-250°C

Combination

COOKING TEMPERATURE

225°F (107°C)
5 hours

SELECT SMOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE SMOKE TIME	FINAL INTERNAL TEMPERATURE
1 hour (light flavor) 2 hours (heavy flavor)	185°F (80°C)
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER

Press Chef Function key.

Turn knob until Smoker icon is displayed.

Press Chef Function key.

"YES" or "NO" check box will appear in display. Use knob or up/down arrow keys to select "YES".

Yes

Press Chef Function key to confirm setting.

Press **START**. START STOP

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS ➤

Stainless steel or aluminum sheet pans or full-size pans

Vegetable release spray (optional)

Seasoning

PRODUCT PREPARATION ➤

Spray pans with vegetable release spray if desired.

Place pork shoulder in pans and season as desired.

Load pans in preheated oven

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES ➤

Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"
Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES ➤

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Breakfast sausage, links or patties:
Raw

FAN SPEED

Full Speed

OVEN PROGRAM

212° - 482° F
100 - 250° C

Combination

SELECT COOKING TEMPERATURE

Combination Steam:
350° to 375°F (177° to 191°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
8 minutes	165°F (74°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans

PRODUCT PREPARATION

Place sausage links or patties in a single layer on pans and load in a preheated oven.

NOTE: The gentle steaming capabilities of the Low Temperature Steam program will provide the ability to cook in advance for finishing (browning) on a grill. This method will help prevent split casings and provide a final product with more moisture content.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	20 full-size sheet pans (20 GN 2/1)

PAN SIZES

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 650mm x 530mm x 20mm

NOTES

Avoid over cooking to prevent split casings. Unless using the Low Temperature Steam mode, remove product from oven immediately to prevent casings from splitting.

SAUSAGE
— Fresh

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Sausage, Fresh (raw)

FAN SPEED

Full Speed

OVEN MODE

Steam

or

Low Temperature Steam

COOKING TEMPERATURE

Steam: 212°F (100°C)

Low Temperature Steam: 160°F (71°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
IN STEAM 13 to 15 minutes **IN LOW TEMPERATURE STEAM** 15 to 20 minutes	175°F (79°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel full-size pans

PRODUCT PREPARATION ➤ Place sausage links or patties in a single layer on pans and load in a preheated oven.

NOTE: The gentle steaming capabilities of the Low Temperature Steam mode will provide the ability to cook in advance for finishing (browning) on a grill. This method will help prevent split casings and provide a final product with more moisture content.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES ➤ Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 650mm x 530mm x 20mm

NOTES ➤ Avoid over cooking to prevent split casings. Unless using the Low Temperature Steam program option, remove from oven immediately to prevent sausage casings from splitting.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Sausage, precooked or smoked

FAN SPEED

Full Speed

OVEN MODE

212° - 482° F
100 - 250° C

Combination

or

86° - 248° F
30° - 120° C

Low Temperature Steam

COOKING TEMPERATURE

Combination Steam: 275°F (135°C)

Low Temperature Steam: 180°F (82°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
COMBINATION MODE 10 to 15 minutes **LOW TEMP STEAM** 15 to 10 minutes	150°F (66°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Stainless steel or aluminum sheet pans or full-size pans

PRODUCT PREPARATION

Place sausage side-by-side in pans.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans 6 full-size pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans 10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans 20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	12 full-size sheet pans 24 full-size pans (24 GN 1/1)
MODEL 20•20	20 full-size sheet pans 40 full-size pans (40 GN 1/1)

PAN SIZES

Half-Size Sheet Pans: 18" x 13" x 1"
Full-Size Sheet Pans: 18" x 26" x 1"
Full-Size Pans: 20" x 12" x 2-1/2"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 530mm x 650mm x 20mm

NOTES

Avoid over-cooking to prevent split casings. Unless using the Low Temperature Steam mode, remove product from oven immediately to prevent casings from splitting.

TURKEY BREAST
— Fresh or Precooked, Boneless

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Turkey breast, boneless:
Fresh (raw) or precooked
8 lb (4 kg) each

FAN SPEED

Half Speed

OVEN MODE

212°-482°F
100°-250°C

Combination

COOKING TEMPERATURE

275°F (135°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
TO BE CALCULATED ON A SINGLE BREAST **FROM RAW** 15 minutes per lb (33 minutes per kg)	165°F (74°C)
PRECOOKED 10 to 12 min per lb (22 to 26 min per kg)	150°F (66°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START — START STOP

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
150° to 160°F (66° to 71°C)	5° to 15°F (3° to 8°C)
	HOT FOOD HOLDING INTERNAL TEMPERATURE WILL INCREASE 20° TO 30°F (11° TO 17°C) WHEN IMMEDIATELY PLACED IN A HOT FOOD HOLDING ENVIRONMENT AT 140°F (60°C). **ADJUST CUT-OFF TEMPERATURE ACCORDINGLY.**

PRESS START — START STOP

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

MATERIALS

Stainless steel or aluminum sheet pans
Wire pan grids (optional)
Vegetable release spray (optional)
Seasoning

PRODUCT PREPARATION

Each breast should be relatively uniform in size to assure even heating from item to item.
Place turkey breasts in pans and season as desired.
Load pans in a preheated oven.

NOTE: When using CORE-TEMP mode, insert the probe so that the tip of the probe is centered in the breast.

	MAXIMUM CAPACITY
MODEL 6•10	6 breasts 3 half-size sheet pans (2 GN 1/1)
MODEL 7•14	12 breasts 3 full-size sheet pans (3 GN 2/1)
MODEL 10•10	10 breasts 5 half-size sheet pans (3 GN 1/1)
MODEL 10•18 10•20	20 breasts 5 full-size sheet pans (3 GN 2/1)
MODEL 12•18 12•20	24 breasts 6 full-size sheet pans (4 GN 2/1)
MODEL 20•20	40 breasts 10 full-size sheet pans (5 GN 2/1)

PAN SIZES

Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 530mm x 650mm x 20mm

NOTES

A more tender product with higher moisture content and less shrinkage will be achieved if this product is cooked overnight in an Alto-Shaam low temperature cook and hold oven.

TURKEY BREAST — Smoked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

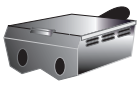
COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Turkey breast, boneless: Fresh (raw) or precooked, 8 lb (4 kg) each

FAN SPEED

Half Speed

WOOD CHIP CONTAINER



Full

OVEN MODE

212° - 482° F
100° - 250° C

Combination

COOKING TEMPERATURE

275°F (135°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
1 hour (light flavor) 2 hours (heavy flavor)	165° (74°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER

Press Chef Function key.

Turn knob until Smoker icon is displayed.

Press Chef Function key.

"YES" or "NO" check box will appear in display. Yes

Use knob or up/down arrow keys to select "YES".

Press Chef Function key to confirm setting.

Press **START**. START STOP

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS ➤

Stainless steel or aluminum sheet pans

Wire pan grids (optional)

Vegetable release spray (optional)

Seasoning

PRODUCT PREPARATION ➤

Each breast should be relatively uniform in size to assure even heating from item to item.

Place turkey breasts in pans and season as desired.

Load pans in a preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES ➤

Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"
Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES ➤

CASSEROLES

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Casseroles: Meat with pasta or rice

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
25 to 45 minutes	165°F (74°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
150° to 155°F (66° to 68°C)	10° to 15°F (6° to 8°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel or aluminum full-size pans

Vegetable release spray

PRODUCT PREPARATION ➤ Spray pans with vegetable release spray.

Fill pans with casserole mixture and load pan in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES ➤ Full-Size pans: 20" x 12" x 2-1/2"

GN 1/1: 530mm x 325mm x 20mm

NOTES ➤

FOR OVENS EQUIPPED WITH SMOKING FUNCTION

COLD SMOKING
CHEESE/FISH/VEGETABLES

START WITH OVEN AT ROOM TEMPERATURE

COMBITHERM OVEN PROCEDURE

PRODUCT

Cheese
Cured Fish
Vegetables

FAN SPEED *ON EQUIPPED MODELS*

Full Speed

WOOD CHIP CONTAINER

Full

OVEN MODE

Convection

COOKING TEMPERATURE

86°F (30°C)

SELECT TIME

TIMER

Press and Set **TIMER**

APPROXIMATE TIME	FINAL INTERNAL TEMPERATURE
Time will depend on the quantity of product and the amount of smoke flavor required. **10 to 60 minutes**	n/a
USE APPROXIMATE SMOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

SMOKER

Press Chef Function key.
Turn knob until Smoker icon is displayed.
Press Chef Function key.
"YES" or "NO" check box will appear in display. Yes
Use knob or up/down arrow keys to select "YES".
Press Chef Function key to confirm setting.
Press **START**.

STOP THE SMOKING FUNCTION AT ANY TIME BY PRESSING THE STOP KEY.

OR On S-Control models, press the Smoking button at the beginning of the cooking cycle.

MATERIALS

Sheet Pans ***OR*** full-size pans
Wire Pan Grids or Icing Racks

Ice: 3 to 4 lb (1 to 2 kg)

PRODUCT PREPARATION

Insert wire grids into sheet pans and place product on grids.

Soak wood chips in water according to directions, fill wood chip container full and insert on chip container prongs located at the back of the oven.

Fill pan with ice and locate ice pan immediately above the wood chip container.

FOR DEEP SMOKE PENETRATION, allow product to remain in the oven for an additional 10 to 60 minutes.

DO NOT OPEN THE OVEN DOOR DURING THE SMOKING FUNCTION.

	MAXIMUM CAPACITY
MODEL 6•10	5 full-size pans or GN 1/1 5 half-size sheet pans
MODEL 7•14	13 full-size pans or GN 1/1 6 full-size sheet pans or GN 2/1
MODEL 10•10	9 full-size pans or GN 1/1 9 half-size sheet pans
MODEL 10•18	19 full-size pans or GN 1/1 9 full-size sheet pans or GN 2/1

PAN SIZES

Full-size pans: 20" x 12" x 2-1/2"
Full-size sheet pans: 18" x 26" x 1"
Half-size sheet pans: 18" x 13" x 1"

Gastronorm 1/1: 530 x 325 x 65mm
Gastronorm 2/1: 650 x 530 x 65mm

NOTES

START WITH THE OVEN AT ROOM TEMPERATURE.

DO NOT OPEN THE OVEN DOOR DURING THE SMOKING FUNCTION.

CUSTARD
— Baked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Custard, baked

FAN SPEED

Full Speed

OVEN MODE

Low Temperature Steam

COOKING TEMPERATURE

190°F (88°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
40 to 60 minutes BASED ON CONTAINER SIZE	

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Ramekins, baking dishes (size and capacity varies)

Stainless steel sheet pans

PRODUCT PREPARATION ➤ Pour mixture into individual containers to depth of 2/3 of the container height.

Place containers on sheet pans.

Load pans in preheated oven.

IT IS NOT NECESSARY TO POUR WATER INTO THE BOTTOM OF THE PANS.

	MAXIMUM CAPACITY
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)
MODEL 12•18 12•20	12 full-size sheet pans (12 GN 2/1)
MODEL 20•20	20 full-size sheet pans (20 GN 2/1)

PAN SIZES ➤ Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 530mm x 650mm x 20mm

NOTES ➤ FOR BEST RESULTS: Use only the Low Temperature Steam program for baked custard, crème brûlée, flans, etc.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Eggs, raw

MATERIALS

Stainless steel or aluminum full-size perforated pans

PRODUCT PREPARATION

Place eggs in pans and load in preheated oven.

FAN SPEED

Full Speed

OVEN MODE

Steam

COOKING TEMPERATURE

212°F (100°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
12 minutes	145°F (63°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES

Full-Size perforated pans:
20" x 12" x 2-1/2"
(GN 1/1: 530mm x 325mm x 65mm)

NOTES

When buzzer signals the end of the steaming cycle, immediately stop the cooking process:

- remove pans and immerse in cold water bath,
  or
- use hand-held hose and thoroughly spray eggs with cold water,
  or
- remove pans and immediately chill using cook/chill processing methods.

EGGS
— Poached

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Eggs, raw

FAN SPEED

STEAM: Full Speed
Low Temperature Steam: Full Speed

OVEN MODE

Steam
or
Low Temperature Steam

COOKING TEMPERATURE

Steam: 212°F (100°C)

Low Temperature Steam: 170°F (77°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
STEAM 3 to 4 minutes	150°F (66°C)
LOW TEMPERATURE STEAM 5 minutes	150°F (66°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Non-stick egg poaching pans —12 eggs per pan

Vegetable release spray

PRODUCT PREPARATION

Coat interior of each pan cup with vegetable release spray.

Break one egg in each cup.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	72 eggs 6 egg poaching pans
MODEL 7•14	168 eggs 14 egg poaching pans
MODEL 10•10	120 eggs 10 egg poaching pans
MODEL 10•18 10•20	240 eggs 20 egg poaching pans
MODEL 12•18 12•20	288 eggs 24 egg poaching pans
MODEL 20•20	480 eggs 40 egg poaching pans

PAN SIZES

Egg Poaching Pans: 20" x 12" — 12 cup

(530mm x 325mm)

NOTES

Hold poached eggs in a preheated cabinet at 140°F (60°C). Following these suggested cooking and holding procedures will result in a holding time of approximately 15 to 20 minutes with eggs in excellent condition.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Eggs, fresh (raw)

or

Pasteurized liquid egg product*

NOTES ➤ Pasteurized liquid egg product is available in cartons or plastic bags. When using this type of product, prepare from carton using the same procedure as fresh eggs. When using a bagged egg mixture, product should be prepared in the original plastic bag.

FRESH or LIQUID PRODUCT	BAGGED PRODUCT
FAN SPEED Full Speed	**FAN SPEED** Full Speed
OVEN MODE Combination Steam and Convection	**OVEN MODE** Steam
COOKING TEMPERATURE 250°F (121°C)	**COOKING TEMPERATURE** 212°F (100°C)
SELECT COOKING TIME	**SELECT COOKING TIME**
TIMER Press and Set **TIMER**	**TIMER** Press and Set **TIMER**
APPROXIMATE COOK TIME 7 minutes ***STIR MIXTURE*** 6 additional minutes	APPROXIMATE COOK TIME 18 minutes ***SHAKE BAG*** 10 additional minutes
FINAL INTERNAL TEMPERATURE 145°F (63°C)	FINAL INTERNAL TEMPERATURE 145°F (63°C)

PRESS START (START STOP)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤
- Stainless steel full-size pans
- Pan covers or aluminum foil
- Vegetable release spray
- Seasoning

PRODUCT PREPARATION ➤

FOR FRESH OR LIQUID: Spray pans with vegetable release spray.

Prepare egg mixture and pour into pans to a depth of approximately 1" (25mm).

Cover using a metal pan cover or aluminum foil.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 full-size pans (3 GN 1/1)
MODEL 7•14	6 full-size pans (6 GN 1/1)
MODEL 10•10	5 full-size pans (5 GN 1/1)
MODEL 10•18 10•20	10 full-size pans (10 GN 1/1)
MODEL 12•18 12•20	12 full-size pans (12 GN 1/1)
MODEL 20•20	20 full-size pans (20 GN 1/1)

PAN SIZES ➤ Full-Size pans: 20" x 12" x 2-1/2"

GN 1/1: 530mm x 325mm x 65mm

NOTES ➤ * Due to Salmonella concerns, it is recommended that all mixed egg preparations with a requirement for whole eggs substitute a pasteurized liquid egg product stabilized with citric acid. Use of this product will also eliminate the greening that can occur during extended hot holding. To avoid greening with the use of whole egg preparations, add lemon juice in the proportion of 1 teaspoon (5 ml) per 1 quart (1 liter) of eggs.

FRENCH FRIES

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ French Fries, Frozen

PREHEAT THE COMBITHERM TO 400°F (204°C).

FRIES TESTED AND RECOMMENDED:

#71179 47003 Simplot Infinity, 5/16 x 3/8, Straight Cut, Ultra-Clear Coating	#X23 Lamb Wesson Generation 7, Natural Cut 3/8 fries Regular Cut with Skin On

FAN SPEED

Full Speed

OVEN MODE

Convection

COOKING TEMPERATURE

400°F (204°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME
1 minute
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

AND

OVEN MODE

Combination

COOKING TEMPERATURE

400°F (204°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME
6 minutes for one pan 9 minutes for full load
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Combitherm Fry Basket
or
sheet pans

PRODUCT PREPARATION ➤ Place a single layer of frozen fries in the Fry Basket or on sheet pans.

Based on 2-1/2 lb (1,13 kg) of fries per basket or half-size sheet pan

5 lb (2,3 kg) per full-size sheet pan

	MAXIMUM CAPACITY	*PRODUCTIO*
MODEL 6•10	6 half-size sheet pans (6 GN 1/1)	90 lb (41 kg)
MODEL 7•14	7 full-size sheet pans (7 GN 2/1)	210 lb (95 kg)
MODEL 10•10	10 half-size sheet pans (10 GN 1/1)	150 lb (68 kg)
MODEL 10•18 10•20	10 full-size sheet pans (10 GN 2/1)	300 lb (136 kg)
MODEL 12•18 12•20	12 full-size sheet pans (12 GN 2/1)	360 lb (136 kg)
MODEL 20•20	20 full-size sheet pans (20 GN 2/1)	600 lb (272 kg)

PAN SIZES ➤ Half-Size sheet pans: 18" x 13" x 1"
Full-Size sheet pans: 18" x 26" x 1"

GN 1/1: 530mm x 325mm x 20mm
GN 2/1: 650mm x 530mm x 20mm

NOTES ➤ Combitherm Fry Basket Item #BS-26730

GALANTINE or MOUSSE

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Galantine
Mousse

FAN SPEED

Full Speed

OVEN MODE

Low Temperature Steam

COOKING TEMPERATURE

160°F (71°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
GALANTINE 60 minutes	150°F (66°C)
MOUSSE 55 minutes	150°F (66°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
135° to 140°F (57° to 60°C)	10° to 15°F (6° to 8°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Loaf pans

PRODUCT PREPARATION ➤ Prepare recipe and place mixture in loaf pans.

Load pans in a preheated oven directly on wire shelves.

	MAXIMUM CAPACITY
MODEL 6•10	9 loaf pans 3 shelves
MODEL 7•14	24 loaf pans 3 shelves
MODEL 10•10	15 loaf pans 5 shelves
MODEL 10•18 10•20	40 loaf pans 5 shelves
MODEL 12•18 12•20	48 loaf pans 6 shelves
MODEL 20•20	80 loaf pans 10 shelves

PAN SIZES ➤ Loaf Pans, 3 lb (1,4 kg) capacity:
4-1/4" x 8-1/8" x 3-1/8"
(108mm x 206mm x 79mm)

NOTES ➤

PÂTÉ EN CROUTE

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Pâté en Croute

FAN SPEED

Full Speed

OVEN MODE

Convection

and

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
CONVECTION MODE 10 minutes *and* **COMBINATION MODE** 40 minutes	140° (60°C)
USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS	

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
125° to 130°F (52° to 54°C)	10° to 15°F (6° to 8°C)

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Loaf pans

PRODUCT PREPARATION ➤ Prepare recipe and place mixture in loaf pans.

Load pans in preheated oven directly on wire shelves.

	MAXIMUM CAPACITY
MODEL 6•10	9 loaf pans 3 shelves
MODEL 7•14	24 loaf pans 3 shelves
MODEL 10•10	15 load pans 5 shelves
MODEL 10•18 10•20	40 loaf pans 5 shelves
MODEL 12•18 12•20	48 loaf pans 6 shelves
MODEL 20•20	80 loaf pans 10 shelves

PAN SIZES ➤ Loaf pans: 3 lb (1,4 kg) capacity
4-1/4" x 8-1/8" x 3-1/8"
(108mm x 206mm x 79mm)

NOTES ➤

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Pizza:
10" (254mm) diameter
12" (305mm) diameter

FAN SPEED

Half Speed

OVEN MODE

Combination

COOKING TEMPERATURE

400°F (204°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
10 minutes	180°F (82°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS

Round pizza pans or sheet pans

PRODUCT PREPARATION

Prepare pizzas and load pans in preheated oven by placing pans directly on wire shelves.

	MAXIMUM CAPACITY
MODEL 6•10	6 pizzas, 10"
MODEL 7•14	21 pizzas, 10" 14 pizzas, 12"
MODEL 10•10	10 pizzas, 10"
MODEL 10•18 10•20	30 pizzas, 10" 20 pizzas, 12"
MODEL 12•18 12•20	36 pizzas, 10" 24 pizzas, 12"
MODEL 20•20	60 pizzas, 10" 40 pizzas, 12"

PAN SIZES

10" (254mm) diameter pizza pans
or
12" (305mm) diameter pizza pans

NOTES

RICE
— Converted or Long Grain

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Rice: Converted or Long Grain

FAN SPEED

Full Speed

OVEN MODE

Steam

COOKING TEMPERATURE

212°F (100°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
20 to 30 minutes	n/a

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel or aluminum full-size pans

Water or stock

Seasoning

PRODUCT PREPARATION ➤ Use a ratio of 1-to-1 rice and water (or seasoned liquid) in each pan to half the pan depth.

Season as desired.

Load pans in oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES ➤ Full-Size Pans: 20" x 12" x 2-1/2"

GN 1/1: 530mm x 325mm x 65mm

NOTES ➤

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Tamales

FAN SPEED

Full Speed

OVEN MODE

Steam

COOKING TEMPERATURE

212°F (100°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
30 to 40 minutes	140° to 160°F (60° to 71°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel full-size perforated pans: 4" (100mm) deep

PRODUCT PREPARATION ➤ Load pans with tamales by placing each in an upright position.

DO NOT PACK TIGHTLY.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	3 full-size pans (3 GN 1/1)
MODEL 7•14	6 full-size pans (6 GN 1/1)
MODEL 10•10	5 full-size pans (5 GN 1/1)
MODEL 10•18 10•20	10 full-size pans (10 GN 1/1)
MODEL 12•18 12•20	12 full-size pans (12 GN 1/1)
MODEL 20•20	20 full-size pans (20 GN 1/1)

PAN SIZES ➤ Full-Size Perforated Pans: 20" x 12" x 4"

GN 1/1: 530mm x 325mm x 100mm

NOTES ➤

POTATOES
— Baked

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ Baking potatoes: 90 count

FAN SPEED

Full Speed

OVEN MODE

Combination

COOKING TEMPERATURE

350°F (177°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
40 to 45 minutes OR UNTIL PROPER INTERNAL TEMPERATURE IS REACHED	190°F (88°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Sheet pans

PRODUCT PREPARATION ➤ Wash potatoes.

Place on pans.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	45 potatoes 3 shelves
MODEL 7•14	120 potatoes 4 shelves
MODEL 10•10	75 potatoes 5 shelves
MODEL 10•18 10•20	150 potatoes 5 shelves
MODEL 12•18 12•20	180 potatoes 6 shelves
MODEL 20•20	300 potatoes 10 shelves

PAN SIZES ➤ n/a

NOTES ➤ **FOR BEST RESULTS**: Do not over cook. The internal temperature of potatoes will continue to increase following removal from oven. Over cooking will reduce moisture content and holding life. Allow surface temperature to stabilize before placing the potatoes in a controlled holding atmosphere.

POTATOES — Red or Salad

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT

Potatoes:
Red or salad variety (SMALL)

FAN SPEED

Full Speed

OVEN MODE

Steam

COOKING TEMPERATURE

212°F (100°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

APPROXIMATE COOK TIME	FINAL INTERNAL TEMPERATURE
30 to 35 minutes	190°F (88°C)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START — START STOP

OR

SELECT INTERNAL CORE TEMPERATURE

CORE TEMP

Press and Set **CORE TEMP**

APPROXIMATE CORE CUT-OFF TEMPERATURE	APPROXIMATE TEMPERATURE OVERRIDE
n/a	n/a

PRESS START — START STOP

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP START STOP **KEY.**

MATERIALS

Stainless steel full-size perforated pans

PRODUCT PREPARATION

Potatoes may be peeled, partially peeled, cut, sliced, or the skin may remain intact.

Place potatoes in pans.

Load pans in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES

Full-size perforated pans:
20" x 12" x 2-1/2"

GN 1/1: 530mm x 325mm x 65mm

NOTES

If seasoning is desired, season potatoes after steaming.

This procedure is based on the use of perforated pans which reduces the time necessary to steam the product. The use of non-perforated pans will require an increase in steaming time.

VEGETABLES
— Fresh

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ See below

FAN SPEED

Full Speed

OVEN MODE

Steam

Quick Steam

COOKING TEMPERATURE

STEAM: 212°F (100°C)

QUICK STEAM: 230° to 248°F (110° to 120°C)

SELECT COOKING TIME

TIMER

Press and Set **TIMER**

PRODUCT		APPROXIMATE COOK TIME
STEAM	Asparagus (MEDIUM SIZE)	5 minutes
	Broccoli	6 minutes
	Cabbage	10 minutes
	Carrots (PEELED & SLICED)	8 minutes
	Cauliflower	5 minutes
	Corn-on-the-Cob	14 minutes
	Green Beans (CUT)	8 minutes
	Squash (SLICED)	3 minutes
	Zucchini (SLICED)	3 minutes
QUICK STEAM		
	Beets	20 minutes
	Parsnips	10 minutes
	Turnips	10 minutes

PRESS START (START STOP)

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel full-size perforated pans

PRODUCT PREPARATION ➤ Portion vegetables into pans and place in preheated oven.

DO NOT OVERFILL THE PANS.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES ➤ Full Size Perforated Pans:
20" x 12" x 2-1/2"

GN 1/1: 530 mm x 325 mm x 65mm

NOTES ➤ Season vegetables after steaming.

When buzzer signals the end of the steaming cycle, immediately stop the cooking process:

- remove pans and immerse in cold water bath,
- **or**
- use hand-held hose and thoroughly spray vegetables with cold water,
- **or**
- remove pans and immediately chill using cook/chill processing methods.

These procedures are based on the use of perforated pans which reduce the time necessary to steam the product. The use of non-perforated pans will require an increase in steaming time.

PREHEAT THE OVEN BEFORE COOKING MODE OPERATION

COMBITHERM OVEN PROCEDURE

PRODUCT ➤ See below

FAN SPEED

Full Speed

OVEN MODE

Steam

COOKING TEMPERATURE

212°F (100°C)

SELECT COOKING TIME

TIMER Press and Set **TIMER**

PRODUCT	APPROXIMATE COOK TIME
Asparagus (MED SIZE)	5 minutes
Broccoli	3 to 4 minutes
Brussels Sprouts	6 to 8 minutes
Carrots, Baby	6 to 7 minutes
Cauliflower (PIECES)	4 minutes
Corn (KERNELS)	4 minutes
Corn-on-the-cob	10 minutes
Green Beans	5 minutes
Peas	4 minutes

USE APPROXIMATE COOKING TIME SHOWN FOR FULL OR PARTIAL LOADS

PRESS START (START STOP)

Time and temperature settings are suggested guidelines only. Due to variations in product quality, weight, and desired degree of doneness the controls may require some adjustment from the time and temperatures shown. All cooking should be based on internal product temperatures.

STOP THE COOKING FUNCTION AT ANY TIME BY PRESSING THE STOP (START STOP) KEY.

MATERIALS ➤ Stainless steel full-size pans or full-size perforated pans

PRODUCT PREPARATION ➤ Separate ice-encased vegetables before steaming.

Make certain the product is generally uniform in size.

Portion vegetables into pans and place in preheated oven.

	MAXIMUM CAPACITY
MODEL 6•10	6 full-size pans (6 GN 1/1)
MODEL 7•14	14 full-size pans (14 GN 1/1)
MODEL 10•10	10 full-size pans (10 GN 1/1)
MODEL 10•18 10•20	20 full-size pans (20 GN 1/1)
MODEL 12•18 12•20	24 full-size pans (24 GN 1/1)
MODEL 20•20	40 full-size pans (40 GN 1/1)

PAN SIZES ➤ Full-Size Perforated pans: 20" x 12" x 2-1/2"

GN 1/1: 530mm x 325mm x 65mm

NOTES ➤ Season vegetables after steaming.

These procedures are based on the use of perforated pans which reduce the time necessary to steam the product. The use of non-perforated pans will require an increase in steaming time.

CONTROL RESET

There is a remote possibility in the day-to-day operation of the Combitherm that the control could lock or freeze. If this occurs, the control is easy to reset.

PRESS AND HOLD THE POWER KEY FOR A PERIOD OF 5 SECONDS.

Release the POWER KEY.
The control will will reset itself within approximately 15 seconds.

WHEN RESET, THE DISPLAY WILL INDICATE THE TIME AND DATE AND THE CONTROLS WILL BE FULLY FUNCTIONAL.

SERVICE MODE AND ERROR CODES

When the oven malfunctions, an error code will appear in the display.

PRESS THE START KEY TO ACKNOWLEDGE THE ERROR.

The keys that begin to flash represent operational modes that are still usable. Refer to Emergency Operation.

When the oven fault is corrected, the Combitherm will return to normal Operation.

ERROR CODES AND REASONS

Error Code	Display Shows	When does the error occur?	Possible reason
E01	Low Water	**ES units only:** • Activated if running in any mode and the water level drops below the low level sensor. • Activated if in Standby mode and the water level drops below the low level sensor for 3 minutes.	• Water supply is shut off. • Low water pressure. • Steam generator drain cap is off or loose. • Drain pump is not sealing. • Faulty or scaled water level probe. • Faulty or plugged solenoid valve assembly. • Wiring or connection issue.
E02	Control Temp High	Activated if the temperature of the electrical control is higher than 176°F (80°C) for 20 seconds.	• Cooling fan not operating. • Unit is next to a heat producing source (there is less than 20" clearance for the control side). • Exhaust hood is not operating (if applicable).
E03	Fan Malfunction	Activated if the motor protection switch is tripped.	• Motor rotation is backwards. • Incorrect power to the unit. • Connection problem at X-7 plug on the relay board pins 3-4.
E04	Aux Fan Fault	Auxiliary fan malfunction.	• Control setup programming error. • Contact factory.
E11	Excess Oven Temp	Activated if the oven cavity temperature is higher than 572°F (300°C) for 25 seconds.	• Connection issue with oven temperature sensor. • Convection element contactor is stuck. • Faulty oven temperature sensor.

ERROR CODES AND REASONS (continued)

Error Code	Display Shows	When does the error occur?	Possible reason
E13	Excess Steam Gen Temp	**ES units only:** Activated if the temperature of the steam generator probe (B-4) is higher than 248°F for 26 seconds. **ESi units only:** • Activated if the position of personality jumper on X-3 is incorrect. • Activated if the position of B-4 jumper is incorrect.	• Problem with water level probe. • Scale build-up inside steam generator. • Steam element contactor is stuck. • Connection issue with B-4 probe. • Faulty B-4 probe. • Jumper on X-3 is improperly positioned. Should be between 2-8 or, if it is a smoker, between 2-9. • Jumper on X-6a is improperly positioned. Should be between 13-14.
E15	Excess Condensate Temp	Activated if the temperature of the condensate probe (B-3) is higher than 212°F (100°C) for 26 seconds.	• Water supply is shut off. • Faulty or plugged solenoid valve (Y-2). • Connection issue at B-3 probe. • Faulty B-3 probe.
E21	Oven Probe Fault	Activated if oven temperature probe (N-6) is interrupted.	• Connection issue at N-6 probe. • Faulty N-6 probe.
E22	Core Temp Probe Fault	Activated if cooking in Core Temp mode and the CTC sensor measures an excessive temperature.	• CTC sensor is damaged. • 4-point CTC sensor is activated, but 1-point CTC sensor is installed. • Cable connection of CTC sensor is damaged. • Hardware problem on control unit (SM).
E23	Steam Gen Probe Fault	**ES units only:** Activated if the steam generator probe (B-4) is interrupted. **ESi units only:** • Activated if the position of personality jumper on X-3 is incorrect. • Activated if the position of B-4 jumper is incorrect.	• Connection issue at B-4 probe. • Faulty B-4 probe. • Jumper on X-3 is improperly positioned. Should be between 2-8 or, if it is a smoker, between 2-9. • Jumper on X-6a is improperly positioned. Should be between 13-14.
E24	Bypass Probe Fault	Activated if the bypass probe (B-5) is interrupted.	• Connection issue at B-5 probe. • Faulty B-5 probe.
E25	Condensate Probe Fault	Activated if the condensate probe (B-3) is interrupted.	• Connection issue at B-3 probe. • Faulty B-3 probe.
E26	Steam Gen Safety Probe Fault	Activated if the steam generator safety probe (N-8) is interrupted.	• Connection issue at N-8 probe. • Faulty N-8 probe.
E27	Excess Steam Gen Safety Temp	**ES units only:** Activated if the steam generator safety probe (N-8) measures a temperature in excess of 266°F (130°C). **ESi units only:** • Activated if the position of N-8 jumper is incorrect.	• Problem with water level probe. • Scale build-up inside steam generator. • Steam element contactor is stuck. • Connection issue with N-8 probe. • Faulty N-8 probe. • Jumper on X-6b is improperly positioned. Should be between 1-2.

ERROR CODES AND REASONS (continued)

Error Code	Display Shows	When does the error occur?	Possible reason
E29	Probe Short to Frame	Activated if one or more of the temperature sensors were connected to GND for 5 seconds.	• Connection issue at any of the temperature sensors. • Temperature sensor shorted to ground/faulty.
E34	DE (Drain) Pump Failure	Activated if water level did not drop below the low level sensor in the generator during a steam generator flush.	• Problem with water level probe. • Scale build-up inside steam generator. • Scale plugging drain pump. • Faulty drain pump.
E35	Venting Error	Activated when vent switch reads open (vent closed) when it should be closed (vent open), or when it reads closed (vent open) when it should be open (vent closed).	• Alignment issue between motor cam and micro switch. • Connection issue at micro switch. • Connection issue at control. • Faulty vent switch. • Faulty vent motor.
E36	Steam Temp High	Activated when oven temperature probe (N-6) measures a temperature in excess of 395°F (202°C) when running in Steam or Combi mode.	• Water supply is shut off while unit is running in Steam or Combi mode. • Plugged or faulty Y-1 solenoid. • Obstruction between Y-01 solenoid and water inlet.
E80	ID Error	Control is unable to detect whether unit is gas or electric.	• Connection issue at X-3 personality jumper. • Faulty control.
E81	Program Memory Error	Temperature value or time value of a program step is not allowed.	• Program was generated in °C and control has been switched to °F. • Program was generated in °F and control has been switched to °C.
E82	WP Error	Temperature value or time value of current cooking algorithm is out of allowed array.	• Delete program and reinstall.
E83	Algo Error	Cooking algorithm sent by operating module (BM) is unknown to control unit (SM).	• Software versions of control unit and operating module are incompatible. • Software error in operating module.
E96	Connection Error	No or bad communication between control unit (SM) and operating module (BM).	• Connection issue at ribbon cable on display or relay board. • Faulty ribbon cable. • Software versions of control unit and operating module are incompatible.

SERVICE MODE AND ERROR CODES

EMERGENCY OPERATION

In the event of an error code, the Combitherm may be operated on a limited basis. Error conditions under which continued operation can be conducted are indicated by “Yes” in the chart shown below.

When the oven malfunctions, an error code will appear in the display.

START STOP PRESS THE START KEY TO ACKNOWLEDGE THE ERROR.

The keys that begin to flash represent operational modes that are still usable.

SELECT AND PRESS ONE OF THE COOKING MODES INDICATED.

The oven control will only respond to the mode keys that are flashing.

SET THE OVEN CONTROLS AS IF OPERATING UNDER NORMAL CIRCUMSTANCES.

Depending on the error code involved, oven function, such as temperature range, may be limited.

START STOP PRESS THE START KEY TO BEGIN THE COOKING PROCESS.

START STOP PRESS THE START KEY WHEN THE TIMER EXPIRES.

When the oven fault is corrected, the Combitherm will return to normal Operation.

CONTINUED OPERATION UNDER ERROR CONDITIONS

Error Code	Display Shows	ES	ESi	Steam Mode	Combination Mode	Convection Mode	Retherm Mode
E01	Low Water	Yes	No	No	No	To 365°F	No
E02	Control Temp High	Yes	Yes	Yes	To 284°F	To 284°F	To 284°F
E03	Fan Malfunction	No	No	—	—	—	—
E04	Aux Fan Fault	Yes	Yes	Yes	To 284°F	To 284°F	To 284°F
E11	Excess Oven Temp	Yes	Yes	No	No	No	No
E13	Excess Steam Gen Temp	Yes	No	No	No	No	No
E15	Excess Condensate Temp	Yes	Yes	No	No	To 356°F	No
E21	Oven Probe Fault	Yes	Yes	212°F only	No	No	No
E22	Core Temp Probe Fault	Yes	Yes	Yes	Yes	Yes	Yes
E23	Steam Gen Probe Fault	Yes	No	Yes	Yes	Yes	Yes
E24	Bypass Probe Fault	Yes	Yes	To 210°F	No	Yes	No
E25	Condensate Probe Fault	Yes	Yes	Yes	To 356°F	To 356°F	To 320°F
E26	Steam Gen Safety Probe Fault	Yes	No	Yes	Yes	Yes	Yes
E27	Excess Steam Gen Safety Temp	Yes	No	No	No	No	No
E29	Probe Short to Frame	Yes	Yes	No	No	No	No
E34	DE (Drain) Pump Failure	Yes	No	Yes	Yes	Yes	Yes
E35	Venting Error	Yes	Yes	Yes	Yes	Yes	Yes
E36	Steam Temp High	No	Yes	No	No	Yes	No
E80	ID Error	Yes	Yes	Yes	Yes	Yes	Yes
E81	Program Memory Error	Yes	Yes	Yes	Yes	Yes	Yes
E82	WP Error	Yes	Yes	Yes	Yes	Yes	Yes
E83	Algo Error	Yes	Yes	Yes	Yes	Yes	Yes
E96	Connection Error	Yes	Yes	No	No	No	No

Preventive Maintenance

In addition to the routine cleaning and maintenance procedures, there are several additional steps to be taken for both sanitation purposes and to keep the oven running at top operating efficiency. These additional safeguards will help prevent inconvenient down time and costly repairs.

- **DO NOT DISPOSE OF GREASE, FAT, OR SOLID WASTE DOWN THE OVEN DRAIN.** Fats and solids will eventually coagulate in the drain system, causing blockage. Consequently, water will back-up into the condenser and interior oven compartment, resulting in an oven that is inoperable.

- **MAKE CERTAIN THE DRAIN SCREEN IS ALWAYS IN PLACE. REMOVE ANY SOLID WASTE MATERIAL FROM THE DRAIN SCREEN BEFORE IT ENTERS THE DRAIN SYSTEM.** The routine removal of solids from the drain screen will help prevent blockage.

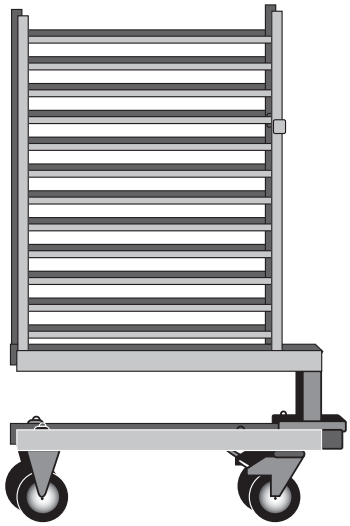
- **USE THE AUTHORIZED COMBITHERM OVEN CLEANER ONLY**. The use of unauthorized cleaning agents may discolor or harm the interior surfaces of the oven.

- **TO PROLONG THE LIFE OF THE DOOR GASKET, CLEAN THIS ITEM DAILY.** The acids and related compounds found in fat, particularly chicken fat, will weaken the composition of the gasket unless cleaned on a daily basis. Wipe with a hot, soapy cloth.

- **TO ADDITIONALLY PROTECT GASKET LIFE, ALLOW OVEN DOOR TO REMAIN SLIGHTLY OPEN AT THE END OF THE PRODUCTION DAY.** An open door will relieve the pressure on the door gasket.

- **ROUTINELY CLEAN DOOR HINGES.** Open oven door to relieve tension. Clean all parts of the hinge.

ROLL-IN CART/FOOD TROLLEY CLEANING (ON EQUIPPED MODELS)



1. Remove food trolley to a cart wash area. Trolleys may be cleaned using any mild cleaning detergent and warm water.
2. Hand wipe all framing, slides, drip pan, and base. Thoroughly clean debris from the casters. A spray hose can be used for easier cart cleaning.
3. Remove detergent solution with warm water.
4. Wipe or spray with a sanitizing solution designed for use on metal and vinyl food contact surfaces.
5. Allow trolley to air dry.

As an alternative, trolleys can be cleaned while inside the oven. Allow the trolley to remain in the oven through the normal cleaning cycle, followed by steps 2 through 5 above.

PROTECTING STAINLESS STEEL SURFACES

It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel. Abrasive pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces. Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled foods should be removed and the area wiped as soon as possible but at the very least, a minimum of once a day. Always thoroughly rinse surfaces after using a cleaning agent and wipe standing water as quickly as possible after rinsing.

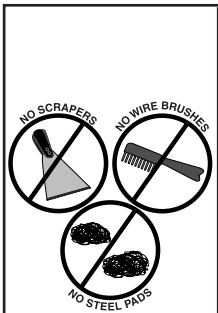
CLEANING AGENTS

USE AUTHORIZED COMBITHERM CLEANER ONLY

Cleaning agents must be chloride-free compounds and must not contain quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel surfaces. Unauthorized cleaning agents may discolor or harm interior surfaces of the oven. Read and understand label and material safety data sheet before using the oven cleaner.

CLEANING MATERIALS

The cleaning function can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods must be employed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of surface metal to avoid surface scratches. Never use wire brushes, metal scouring pads, or scrapers to remove food residue.



⚠CAUTION

TO PROTECT STAINLESS STEEL SURFACES, COMPLETELY AVOID THE USE OF ABRASIVE CLEANING COMPOUNDS, CHLORIDE BASED CLEANERS, OR CLEANERS CONTAINING QUATERNARY SALTS. NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL. NEVER USE WIRE BRUSHES, METAL SCOURING PADS OR SCRAPERS.

Cleaning and Maintenance

Establishing a routine cleaning and maintenance schedule will help keep the Combitherm oven running at top operating efficiency and is an absolutely essential part of a comprehensive sanitation program. Good equipment maintained and kept clean works better and lasts longer. ***PROTECT YOUR INVESTMENT.***

DAILY GASKET CLEANING

It is important to prolong the life of the oven gasket by cleaning this item on a daily basis. Routine cleaning will help protect the composition of the gasket from deterioration caused by acidic foods.

1. After allowing the oven to cool, wipe the gasket and crevices with warm detergent solution and a clean cloth.
2. Remove detergent be wiping the gasket and crevices with clean rinse water and a cloth.

Do not remove or place gasket in the dishwasher.

PROBE USAGE AND CLEANING

After each use of the CORE TEMP mode, wipe the probe tip with a clean paper towel to remove food debris. Follow by wiping the probe with a disposable alcohol pad. Return the probe to the proper door bracket position.

PROBE CLEANING PROCEDURES

1. Remove all food soil from probe between loads and at the end of each production shift. Wipe the entire probe, probe cable assembly, and probe holding bracket with warm detergent solution and a clean cloth.
2. Remove detergent by wiping the probe, cable, and bracket with clean rinse water and a cloth.
3. Wipe probe and probe bracket with disposable alcohol pad or sanitizing solution recommended for food contact surfaces.
4. Allow probe and cable to air dry in the probe holding bracket.
5. Wipe the probe with a disposable alcohol pad prior to inserting in a new food product.

DAILY OVEN CLEANING

To be performed at the end of the production day or between production shifts.

DAILY STEAM GENERATOR FLUSH

(*ELECTRIC BOILER EQUIPPED MODELS ONLY*)

When operating the oven on a regular basis, the steam generator must be flushed once a day. This procedure will prevent lime deposits and scale build-up from forming in the steam generator. A steam generator flush is automatically initiated during the cleaning function on S-Control models.

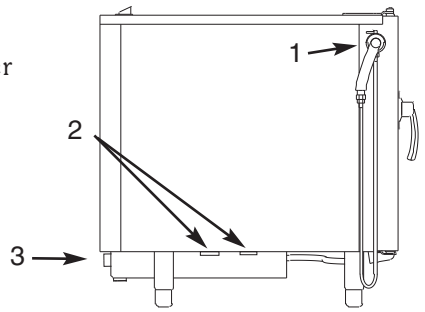
REGULAR DECALCIFICATION

(*ELECTRIC BOILER EQUIPPED MODELS ONLY*)

It is VERY important to decalcify the steam generator, particularly in areas with extremely hard water. In addition to the daily steam generator flush, this procedure should be performed once a month or more frequently depending on usage and water conditions.

MONTHLY CLEANING

1. Spray Head
2. Water Intake Filter
3. Drain Pipe



CAUTION

ALLOW THE OVEN TO COOL BELOW 280°F (140°C) BEFORE STARTING THE AUTO-CLEAN FUNCTION.

NOTE: The temperature in the display indicates the air temperature inside the oven compartment and not the interior walls of the oven. Always make certain to allow the oven walls to cool to a minimum of 280°F (140°C) before cleaning.

WARNING

WATER SUPPLY MUST BE OPEN WHEN CLEANING PROGRAM IS ACTIVATED.

VERIFY WATER SUPPLY BEFORE STARTING CLEANING PROGRAM.

NOTE

USE AUTHORIZED COMBITHERM CLEANER ONLY.

DANGER

RUBBER GLOVES MUST BE WORN WHEN USING THE OVEN CLEANER.

Unauthorized cleaning agents may discolor or harm interior surfaces of the oven. Read and understand label and material safety data sheet before using the oven cleaner.

CAUTION: CAUSES EYE, SKIN, AND RESPIRATORY TRACT IRRITATION. KEEP OUT OF REACH OF CHILDREN.

PRECAUTIONS:

Do not take internally.

Avoid contact with eyes and skin.

Use rubber gloves when using this product.

Wash thoroughly after handling.

Avoid mixing with strong, concentrated acids.

FIRST AID:

SKIN: Flush with water. Remove contaminated clothing and do not re-wear until washed. If irritation persists see a physician.

EYES: Flush with water for 15 minutes. See a physician immediately.

INHALATION: If difficulty in breathing occurs, leave area immediately and do not return until dust is settled. If irritation persists, see a physician.

INGESTION: Drink large quantities of milk or water. DO NOT INDUCE VOMITING. See a physician immediately.

- ***Protective packaging will begin to dissolve onto skin if handled with damp or wet hands.***

STANDARD CONTROL
DELUXE CONTROL

Cleaning and Maintenance

SmartClean™ Automatic Cleaning Program

Remove all food scraps and residue from the oven drain. Remove shelves, side racks and pans and wash separately.

DANGER
RUBBER GLOVES MUST BE WORN WHEN USING THE OVEN CLEANER.

Easy to use Combitherm tablets, Combitherm spray cleaner or a combination of both may be used in this cleaning program.

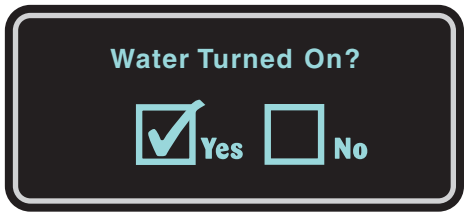
With the oven power ⏻ ***on***

PRESS THE CHEF FUNCTION KEY.

Rotate the adjustment knob until the Clean symbol is highlighted in the display.

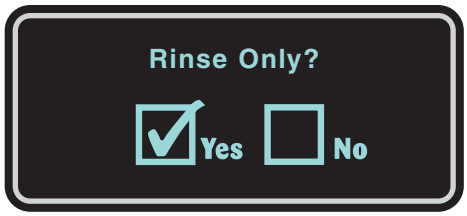
PRESS THE CHEF FUNCTION KEY.

THE CONTROL WILL ASK FOR VERIFICATION FOR A SERIES OF ITEMS BEFORE THE CLEANING FUNCTION CAN BE STARTED:



Verify water is supplied to the oven and press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES".

PRESS THE CHEF FUNCTION KEY.

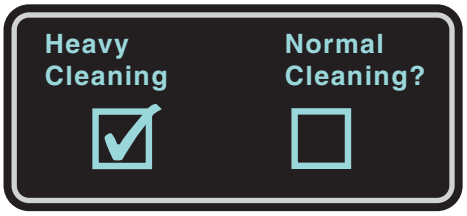


Press the up △ and down ▽ arrow keys or rotate the adjustment knob to make the appropriate selection.

PRESS THE CHEF FUNCTION KEY.

If "Yes" is selected, the oven will begin a 20 minute rinse cycle. Display will count down indicating time remaining in the rinse cycle.

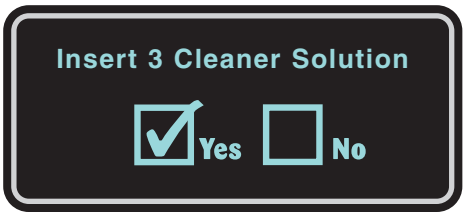
If "No" is selected, the display will indicate a choice of Cleaning levels.



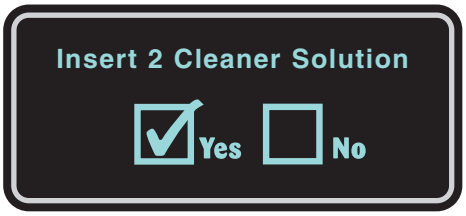
Press the up △ and down ▽ arrow keys or rotate the adjustment knob to make the appropriate selection.

PRESS THE CHEF FUNCTION KEY.

If "Heavy Cleaning" is selected:



If "Normal Cleaning" is selected:

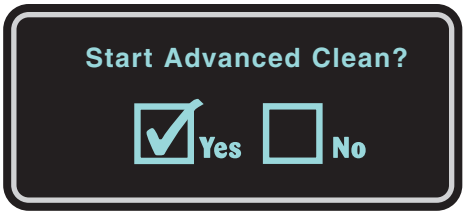


Wearing rubber gloves, remove drain screen at bottom of oven and place the approriate number of cleaning packets in drain opening. Replace drain screen. Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES".

PRESS THE CHEF FUNCTION KEY.

SMARTCLEAN™ AUTOMATIC CLEANING PROGRAM (CONTINUED)

If "Yes" is selected, the display will indicate:



Press the up △ and down ▽ arrow keys or rotate the adjustment knob to select "YES".

PRESS THE CHEF FUNCTION KEY TO CONFIRM AND START THE CLEANING PROGRAM.

HEAVY CLEANING WILL BEGIN A 135 MINUTE CLEANING AND RINSE CYCLE.

NORMAL CLEANING WILL BEGIN A 90 MINUTE CLEANING AND RINSE CYCLE.

DISPLAY WILL COUNT DOWN INDICATING TIME REMAINING.

At the end of the SmartClean function, the oven will beep and the display will indicate:

After 3 minutes, beeping will stop. Display will continue to indicate cleaning finished.

Press the start / stop key to stop the buzzer and return the oven to normal operation.

NOTE:

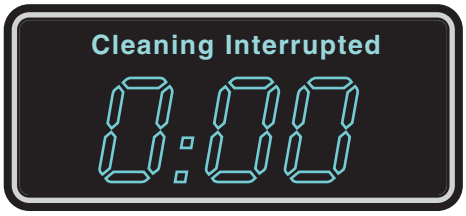
If "No" is selected, the cleaning program will be exited and revert to the last cooking program used.

FORCED RINSING MODE:

If the cleaning cycle is stopped during cleaning, the unit will immediately go into a Forced Rinsing mode for 6 minutes.

If power is lost or the unit is turned off during cleaning, the unit will go into a Forced Rinsing mode when power is restored, or unit is turned back on.

Once the Forced Rinsing is complete "Cleaning Interrupted" will appear on the Display.



Press the start/stop key to return the oven to normal operation.

NOTE:

IF THE DOOR IS OPENED DURING THE CLEANING PROCESS, "CLOSE THE DOOR!" WILL APPEAR IN THE DISPLAY.

ATTENTION:

In a forced rinse situation, circulating water will ***not*** reach all areas of the oven. The cleaning program will need to be initiated again.

LEAVE DOOR SLIGHTLY OPEN AFTER CLEANING

Cleaning and Maintenance

S- CONTROL OPTION

SmartClean™ AUTOMATIC CLEANING PROGRAM

Remove all food scraps and residue from the oven drain. Remove shelves, side racks and pans and wash separately.

Wearing rubber gloves, remove drain screen at bottom of oven and place 3-4 cleaning packets in drain opening. Replace drain screen.

With the oven power ON,

rotate the **Cooking Mode** dial to the **Cleaning** mode position.

"CLN" will appear in the display.

After 1 minute "135" will appear in the display indicating a 135 minute cleaning cycle.

THE OVEN WILL BEGIN A 135 MINUTE CLEANING AND RINSE CYCLE.

DISPLAY WILL COUNT DOWN INDICATING TIME REMAINING IN THE CLEANING CYCLE.

At the end of the SmartClean function, the oven will beep and the display will indicate "FIN."

After 3 minutes, beeping will stop. Display will contine to indicate cleaning finished. Turn the **Cooking Mode** dial to the **OFF** position.

FORCED RINSING MODE:

If the cleaning cycle is stopped after 10 minutes in the cleaning cycle, the unit will immediately go into a Forced Rinsing mode and display "RIN" for 5 minutes.

If power is lost or the unit is turned off during cleaning, the unit will go into a Forced Rinsing mode when power is restored, or unit is turned back on.

After a period of 5 minutes "FIN" will appear in the display.

LEAVE DOOR SLIGHTLY OPEN AFTER CLEANING

STANDARD CONTROL
DELUXE CONTROL

DECALCIFICATION ON BOILER EQUIPPED MODELS
using ScaleFree™ or Distilled White Vinegar

STANDARD CONTROL
DELUXE CONTROL

ScaleFree™ Descaling Compound is an acid-based descaler combined with a proprietary chelating agent that is effective in dissolving and removing carbonate, lime-scale and iron scale build-up caused by hard water. ScaleFree efficiently and effectively removes lime-scale build-up from combi ovens.

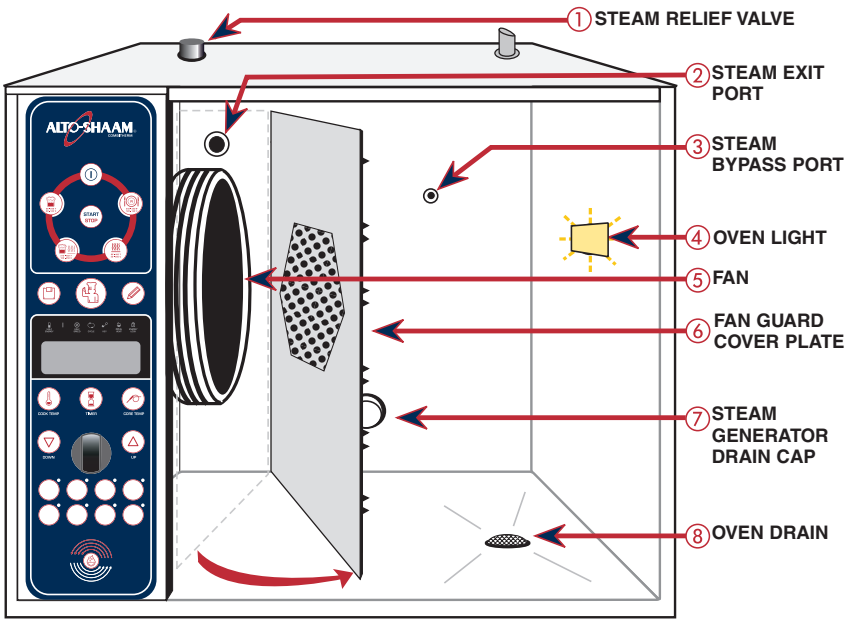
ScaleFree™ is a non-hazardous, Biodegradable Citrus Based Powder that when mixed with water becomes a powerful lime-scale remover.

It is ***VERY*** important to decalcify the oven, particularly in areas with extremely hard water.

PERFORM ONCE A MONTH in addition to the daily steam generator flush.

WITH THE OVEN AT ROOM TEMPERATURE

1. Begin decalcification with the power key in the *OFF* position.
2. Open oven door. Wearing hand protection, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed.
3. Let the water continue to drain until the flow completely subsides. Replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance. Close oven door.
4. Using the batch mix instructions on the label, mix up 1 gallon of ***ScaleFree***™ solution at a time ***or*** one gallon of distilled white vinegar for counter top models and 3 gallons of distilled white vinegar for floor standing models. Using a funnel inserted into the Steam Relief Valve ①, slowly pour solution in to the Steam Generator until full.
5. Remove funnel from Steam Relief Valve ①.



WARNING

DURING DECALCIFICATION THE WATER FLOWING FROM THE DRAIN CAP IS EXTREMELY HOT! USE HAND PROTECTION WHEN TOUCHING THE STEAM GENERATOR DRAIN CAP. DO NOT TOUCH THE WATER FLOWING OUT OF THE STEAM GENERATOR DRAIN CAP OR STEAM GENERATOR DRAIN.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.
The unit will add water if needed.

PRESS THE STEAM PROGRAM KEY
The unit will begin to pre-heat.

DO NOT PRESS START. *(Continued on next page)*

STANDARD CONTROL
DELUXE CONTROL

ALLOW THE UNIT TO PREHEAT FOR 30 MINUTES.
After a period of 30 minutes —

PRESS THE ON/OFF POWER KEY TO THE *OFF* POSITION.

6. Open the oven door. ***USING HAND PROTECTION***, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed. Let the water continue to drain until the flow completely subsides.

7. Loosen the thumb screw(s) and swing Fan Guard Cover Plate ⑥ toward the back of the oven. Using the hand-held hose, direct a stream of water directly into the Steam Generator Drain ⑦ and Steam Exit Port ② several times. Close the swing-out Cover Plate ⑥. Lock the cover into place and tighten thumb screw(s). Close the oven door.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.
A new supply of fresh water will begin to flush the steam generator.

ALLOW THE WATER TO RUN FOR 2 MINUTES
to continue to flush out all remaining solution.

PRESS THE ON/OFF POWER KEY TO THE *OFF* POSITION.

8. Open oven door. ***USING HAND PROTECTION***, replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance. Close oven door.

PRESS THE ON/OFF POWER KEY TO THE *ON* POSITION.
The unit will start to fill.

START STOP

PRESS THE STEAM MODE KEY AND THEN PRESS THE START KEY.
ALLOW UNIT TO RUN FOR 20 MINUTES IN THE STEAM MODE.

PRESS THE ON/OFF POWER KEY TO THE *OFF* POSITION.

9. Open the oven door. ***USING HAND PROTECTION***, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed. Let the water continue to drain until the flow completely subsides. Replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance.

At the end of the production day, leave the door slightly ajar.

THE UNIT IS NOW READY TO BE USED.

DO NOT COOK IN ANY PROGRAM MODE WITH ***ScaleFree***™ OR VINEGAR IN THE STEAM GENERATOR SYSTEM.

S-CONTROL OPTION

DECALCIFICATION ON BOILER EQUIPPED MODELS
using ScaleFree™ or Distilled White Vinegar

S-CONTROL OPTION

ScaleFree™ Descaling Compound is an acid-based descaler combined with a proprietary chelating agent that is effective in dissolving and removing carbonate, lime-scale and iron scale build-up caused by hard water. ScaleFree efficiently and effectively removes lime-scale build-up from combi ovens.

ScaleFree™ is a non-hazardous, Biodegradable Citrus Based Powder that when mixed with water becomes a powerful lime-scale remover.

It is ***VERY*** important to decalcify the oven, particularly in areas with extremely hard water.

PERFORM ONCE A MONTH in addition to the daily steam generator flush.

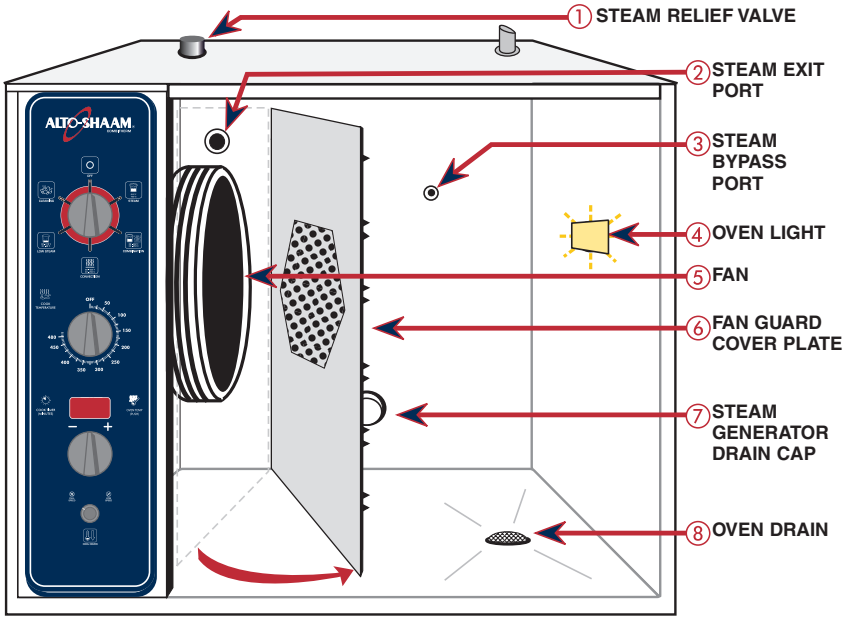
WITH THE OVEN AT ROOM TEMPERATURE

1. Begin decalcification with the power knob in the *OFF* position.
2. Open oven door. Wearing hand protection, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed.
3. Let the water continue to drain until the flow completely subsides. Replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance. Close oven door.
4. Using the batch mix instructions on the label, mix up 1 gallon of ***ScaleFree***™ solution at a time ***or*** one gallon of distilled white vinegar for counter top models and 3 gallons of distilled white vinegar for floor standing models. Using a funnel inserted into the Steam Relief Valve ①, slowly pour solution in to the Steam Generator until full.
5. Remove funnel from Steam Relief Valve ①.

   TURN THE SELECTION KNOB TO THE STEAM POSITION.

   THE UNIT WILL ADD WATER IF NEEDED AND BEGIN TO PREHEAT.

(Continued on next page)



WARNING

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S- CONTROL OPTION

ALLOW THE UNIT TO PREHEAT FOR 30 MINUTES.

After a period of 30 minutes —

TURN THE SELECTION KNOB TO THE *OFF* POSITION.

6. Open the oven door. ***USING HAND PROTECTION***, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed. Let the water continue to drain until the flow completely subsides.

7. Loosen the thumb screw(s) and swing Fan Guard Cover Plate ⑥ toward the back of the oven. Using the hand-held hose, direct a stream of water directly into the Steam Generator Drain ⑦ and Steam Exit Port ② several times. Close the swing-out Cover Plate ⑥. Lock the cover into place and tighten thumb screw(s). Close the oven door.

STEAM

TURN THE SELECTION KNOB TO THE *STEAM* POSITION.
A new supply of fresh water will begin to flush the steam generator.

ALLOW THE WATER TO RUN FOR 2 MINUTES OF OPERATION IN THE STEAM MODE,
to continue to flush out all remaining solution.

TURN THE SELECTION KNOB TO THE *OFF* POSITION.

8. Open oven door. ***USING HAND PROTECTION***, replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance. Close oven door.

STEAM

TURN THE SELECTION KNOB TO THE *STEAM* POSITION.
The unit will start to fill.

ALLOW UNIT TO RUN FOR 20 MINUTES IN THE STEAM MODE.
TURN THE SELECTION KNOB TO THE *OFF* POSITION.

9. Open the oven door. ***USING HAND PROTECTION***, rotate the Steam Generator Drain Cap ⑦ until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed. Let the water continue to drain until the flow completely subsides. Replace the Steam Generator Drain Cap ⑦ by turning it clockwise until there is a slight resistance.

At the end of the production day, leave the door slightly ajar.

THE UNIT IS NOW READY TO BE USED.

DO NOT COOK IN ANY PROGRAM MODE WITH
ScaleFree™ OR VINEGAR IN THE STEAM GENERATOR SYSTEM.

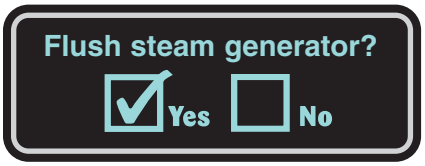
STANDARD CONTROL
DELUXE CONTROL

AUTOMATIC STEAM GENERATOR FLUSH
AT THE START OF THE WORK DAY

Flushing the electric Combitherm steam generator on a daily basis helps to prolong the life of the steam generator heating elements and helps prevent the necessity of service requirements. The control provides this feature as an automatic function when the oven ON/OFF power key is pressed to the ON position at the start of each working day.

PRESS THE ON/OFF POWER KEY TO THE ON POSITION.

DISPLAY MESSAGE INDICATES:



YES

START STOP **PRESS THE START KEY OR** **CHEF FUNCTION KEY** to begin the steam generator flush.

The steam generator is automatically drained, flushed, and refilled with water within 5 minutes or less. Following this time period, the Combitherm is ready for operation.

NO

TO CANCEL THE STEAM GENERATOR FLUSH, ROTATE THE ADJUSTMENT KNOB ONE TURN TO THE RIGHT UNTIL THE DISPLAY INDICATES "NO".

START STOP **PRESS THE START/STOP KEY OR** **CHEF FUNCTION KEY** to confirm cancellation.

If steam generator flush cancellation is not initiated within 10 seconds of the appearance of the display message, the flushing function will automatically start. Following cancellation, the Combitherm is ready for operation. The flushing process ***must*** be initiated manually at a later time during the working day if not conducted at startup.

MANUAL STEAM GENERATOR FLUSH

PERFORM DAILY WHEN THE STEAM GENERATOR FLUSH IS NOT PERFORMED AT THE START OF THE WORKING DAY.

WITH THE OVEN AT ROOM TEMPERATURE

1. Press the Power Switch to the OFF position. Rotate the Steam Generator Drain Cap located at the back of the oven until water begins to flow from the four holes in the cap. In approximately 20 to 60 seconds, a sufficient quantity of water will have drained from the steam generator so that the drain cap can be completely removed.
2. As the water continues to flow from the generator, it will have a milky or cloudy appearance, which indicates deposits in the generator are beginning to flush through the system. Let the water continue to drain until the flow begins to subside.
3. When the flow begins to subside, remove the hand-held hose from the side of the oven and direct a stream of fresh water directly into the steam generator drain opening located directly behind the Steam Generator Drain Cap. Repeat this procedure several times until the water begins to run clear.
4. Press the oven Power Switch to the ON position. When the audible signal is heard, press the Steam Mode Key. A new supply of fresh, cold water will begin to flow through the steam generator. Repeat this procedure several times until the water runs completely clear.
5. Once the water is completely clear, replace the Steam Generator Drain Cap over the steam generator drain by turning it clockwise, by hand, until there is a slight resistance.

DO NOT OVER-TIGHTEN STEAM GENERATOR DRAIN CAP.

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